Expanded Site Investigation

KCS Lighting Inc – Stonco Lighting Division

Aka: Keene – Stonco LOC
The Genlyte Thomas Group, LLC
Philips Electronics North America

2345 Vauxhall Road
Union
Union County, New Jersey
EPA ID No.: NJD053513644

Volume I of I

New Jersey Department of Environmental Protection
Site Remediation Program
Bureau of Environmental Measurements and Site Assessment

September 2011

KCS Lighting, Inc. – Stonco Lighting Division
2345 Vauxhall Road
Union, New Jersey 07083
EPA ID No.: NJD053513644

Narrative

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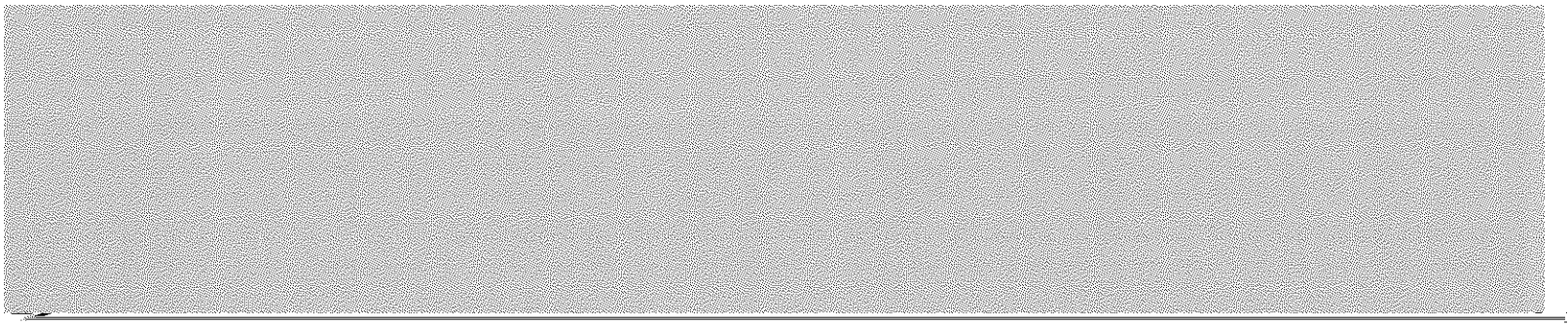
Attachments

A) NJDEP, Bureau of Environmental Measurements and Site Assessment, KCS Lighting, Inc. Stonco Lighting Division, Site Investigation Report; April 2011

B) Haley and Aldrich, Monitoring Well Test Boring Report Drafts; July 2011

C) NJDEP Mobile Lab Final Report: Vauxhall Road and Swanstrom Place Ground Water Samples; August 2011

D) United States Environmental Protection Agency Region 2 Laboratory Data Report KCS Lighting 1108014; August 26, 2011



EXPANDED SITE INVESTIGATION REPORT

PART I: GENERAL INFORMATION

Site Name: KCS Lighting, Inc. Stonco Lighting Division
Aka: Keene – Stonco LOC
The Genlyte Thomas Group, LLC
Philips Electronics North America

Address: 2345 Vauxhall Rd.
Municipality: Union **State:** New Jersey **Zip Code:** 07083
County: Union
EPA ID No.: NJD053513644
Block: 5609 **Lot(s):** 35.01
Latitude: +40.708703 **Longitude:** -74.274845 (decimal)
40 ° 42'31" -74 ° 16'29" (ddmmss)

USGS Quadrangle: Roselle
Acreage: 10.09 **SIC Code:** 3646

Block 5609 Lot 35.01
Current Owner: Philips
Mailing Address: 200 Franklin Square Drive
City: Somerset **State:** NJ **Zip Code:** 08875
Telephone No.: (732) 563-3568

Operator: Same

Owner/Operator History:

NAME	OPERATOR/ OWNER	DATES	
		FROM	TO
The Estate of Caroline A. Foster	Owner	Pre-1857	9/27/39
Leandro Gallini and Evelyn Gallini	Owner	1939	1953
A.P.W. Products, Hazel Bishop Co./ J.L. Hammett Company	Operator Owner	1953	1979
Stonco/Keene Corporation	Operator/Owner	8/31/79	7/31/84
Stonco/KCS Lighting, Inc	Operator/Owner	7/31/84	8/19/92
Stonco/The Genlyte Group, Inc.	Operator/Owner	8/19/92	2008
Stonco/Philips	Operator/Owner	2008	Present

The New Jersey Department of Environmental Protection (NJDEP) Bureau of Environmental Measurements and Site Assessment (BEMSA) Site Assessment Section (SA) has prepared this Expanded Site Investigation Report (ESI) to supplement the initial Subsurface Investigation (SI) conducted at the KCS Lighting, Inc. Stonco Lighting Division (Stonco) property (site) and summarized in the April 15, 2011, SI Report, KCS Lighting, Inc. Stonco Division. Philips Lighting purchased the Stonco operations in 2008 and activity at the Stonco site ceased on April 1, 2011. As of this writing, a skeleton crew of employees remains to salvage equipment used in the operations of the plant and administrative personnel continue to occupy the offices. As a result of the plant closure, Philips is conducting a second NJDEP Industrial Site Recovery Act (ISRA) investigation to address some of the concerns detailed in the SI and as final housekeeping for their site closure.

Surrounding Land Use (zoning, adjacent properties: Stonco operated their manufacturing facility on a 9.35 acre property (Block 5609 Lot 35.01) (Maps 1, 2 and 3). Adjacent to the Stonco facility, on the southeastern border, is the Lincoln Technical Institute which provides training for young adults in a variety of vocational skills. Southwest of Stonco is Vauxhall Road across from which are the Hickory Manor Condominiums and the former location of Harvard Industries. (Maps 3 and 4) Sharing the northwestern property boundary is a building labeled Tessler and Weiss in large letters on its exterior. The NJDEP, Bureau of Environmental Measurements and Site Assessment (SA) recently completed a Site Investigation Report (SI) at Tessler and Weiss, a.k.a Premrefco/Premesco (SI is named Premrefco, Inc.) (Map 5) Also, northwest of Stonco, is a facility operated by Federal Express. The Federal Express facility arranges the distribution of packaging and cargo and maintains their truck fleet. Oliner Fibre, a manufacturer of industrial paperboards, plastics, and products for the heat sealing and loose leaf industries, is located to the northeast of the Stonco Facility. A review of NJDEP Right to Know files and Hazardous Waste Manifesting information revealed that Oliner Fibre did not use hazardous materials nor generate hazardous waste.

Summary of SI: SA initiated the investigation at Stonco in early 2010 as part of a regional investigation to identify the source of indoor air contamination at the Hickory Manor Condominiums (condos) located at Vauxhall Road and Swanstrom Place in Union, NJ. (Attachment A)

After several years of tenant occupancy at Hickory Manor, trichloroethylene (TCE) was detected in the indoor air of the condos at concentrations exceeding NJDEP Rapid Action Levels. The NJDEP responded by installing sub-slab remediation systems in four of the condo units. Suspected sources of the contamination detected at the condos included Red Devil, Inc., located adjacent to and hydraulically upgradient of the condos and Harvard Industries. (Map 4). Red Devil ceased operations at their Vauxhall Road facility in 2001 and a separate condominium community is to be developed on the site.

Because Stonco is located hydraulically upgradient of the Hickory Manor Condominiums and the use of chlorinated solvents at their plant was documented, SA was tasked to investigate Stonco as a possible source of the TCE detected in the indoor air at the condos. Prior investigations at Stonco included only limited subsurface investigations related to underground storage tanks (USTs). Ground water sampling had never been conducted on the Stonco site, prior to the 2010 – 2011 subsurface investigations.

As part of the Harvard Industries and Red Devil remedial investigations, monitoring wells MW-24 and MW-24D were installed on the right-of-way of Vauxhall Road in a position hydraulically downgradient of Stonco. (Map 6–7) Analysis of ground water collected from MW-24 in December 2007 indicated TCE concentrations of 230 parts per billion (ppb) and tetrachloroethene (PCE) concentrations of 4 ppb, both exceeding the NJDEP ground water quality standard of 1 ppb. Since the monitoring wells were installed upgradient of both the Hickory Manor Condominiums and Red Devil, NJDEP became interested in discovering the origin of the contamination to prevent further contaminant migration onto the Hickory Manor Condos. The results of resampling MW-24 in August 2011 confirmed that the concentrations of both TCE and PCE had decreased, but remained far above the ground water cleanup standards. (Map 6- 7)

SA was given a tour of the Stonco facility on April 29, 2010 and observed the activities prior to the shut down. There were no hazardous wastes generated at the site and waste streams consisted of trash and non-hazardous phosphates. There were problems in the past when sampling of the plant sewer effluent indicated elevated concentrations of zinc. These discharges were related to the powder coating process and measures were taken to eliminate the discharge of zinc. Plant personnel also informed SA that Stonco utilized a wet paint process prior to 1985 and that the paints used were water-based. SA identified the area within the Stonco plant where wet painting had occurred and targeted the building's exterior adjacent to the paint area for ground water sampling. SA also toured the remainder of the exterior of the facility to identify additional AOCs and determine locations to advance borings for the subsurface investigation.

After reviewing the Stonco ISRA submittals from 1999 and information obtained during the initial site visit, SA developed a work plan that addressed two AOCs attributable to plant operations. AOC 1 is located in an area where USTs providing heating oil for the building were located. (Map 7) Also located within AOC 1 is a sewer pipe that carried liquid waste materials from floor drains located in the paint storage area and the area where painting occurred. During the investigation for the initial SI, SA advanced boring SB-5 in an attempt to intersect the bottom of the former 10,000 gallon heating oil UST. Based upon elevated readings from a TVA organic vapor analyzer, SA selected two intervals from which to collect soil samples. The intervals were 13 to 13.5 feet and 16 to 16.5 feet bgs. In spite of strong petroleum hydrocarbon odors in the first interval, sample analysis indicated that there were no VOCs detected in either sample. A ground water sample was collected at a depth of 49 feet bgs, near the bedrock interface. Analysis of the sample indicated concentrations of tetrachloroethene (PCE) at 19.9 ppb and TCE at 27.9 ppb. The detection of PCE and TCE in the ground water confirmed a release of the solvents at the Stonco facility. It is possible that the release resulted from a leak in the sewer line.

AOC 2 is located on the northeastern corner of the Stonco facility where Stonco stored hazardous waste and chemicals. A railway siding was also located in this area, but it was not used by Stonco and only a partially buried section of rail remains. Soil borings SB-2 and SB-3 were advanced in the area and soil samples were collected from each boring based upon screening with the TVA organic vapor analyzer. Soil samples were collected from SB-3 at depths of 4.5 to 5 feet (SB-3S) and 10.5 to 11 feet bgs (SB-3B). PCE was detected at a concentration of 11 ppb in SB-3B, but there were no other volatiles detected in either sample. Soil samples were not collected from SB-2. Ground water samples were collected from both boring SB-2 and SB-3. In SB-2, TCE was detected at a concentration of 9.7 ppb and PCE was detected at a concentration of 8.7 ppb. In SB-3, TCE was detected at a concentration of 13 ppb and PCE was detected at a concentration of 5.1 ppb. The NJDEP GWQS of 1 ppb for each compound in both borings was exceeded. (Map 7)

The SI's for both Stonco (Attachment A) and its western neighbor Premrefco were conducted in September and October of 2010. (Map 4). The two investigations were conducted concurrently because boring locations in down gradient positions relative to AOCs at Premrefco were located on Stonco property. Because ground water flow is in an assumed southwestern direction, SA advanced three borings on the Stonco property to assess ground water conditions adjacent to the Premrefco site. The analytical results of ground water collected from the borings indicated concentrations of TCE in the shallow aquifer as high as 670 ppb, 1,1-dichloroethene (1,1-DCE) as high as 310 ppb and 1,1,1-trichloroethane (TCA) as high as 240 ppb. (Maps 6 and 8)

Distance to Nearest Residence or School: A residence is located less than 150 feet southeast of the Stonco Facility (Map 3)
Direction: Southeast
Population Density (residents per square mile): 5,786

PART II: SITE OPERATIONS

Discuss all current and past operations at the site. Include a description of the buildings or structures on site and their physical condition. In addition, tabulate all areas of concern (AOC) and provide the waste source type for each AOC. Include the physical state of waste at each AOC as stored or disposed, the condition of containers and the presence or absence of secondary containment and the volume of waste stored or disposed, or the volume or area of contaminated soil or water.

The following historical information was obtained from a NJDEP Industrial Site Recovery Act (ISRA) submission by Stonco on May 1, 1998. The submission (ISRA Case #E1998203) was made because The Genlyte Group Inc. was attempting to transfer their property and assets to the Genlyte Thomas Group, LLC. Besides the General Information Notice, Stonco submitted a Preliminary Assessment Report and a Site Investigation Report. Information concerning Stonco's recent operations was obtained through a site visit and interviews with plant personnel.

The Stonco site was undeveloped until the main building was constructed in 1953. The J.L. Hammett Company, who also had operations in the nearby Fed Ex Building, initially owned the site building, but it was operated by A.P.W. Products. (Map 5) Both companies were involved in paper goods manufacturing. In approximately 1960, Hazel Bishop, a cosmetic company, operated at the site. Hazel Bishop was a chemist who developed the first smudge-proof lipstick. She started her own cosmetics firm and produced water-based lipstick and toothpaste at the site. The company utilized a railroad siding formerly located on the northeastern portion of the subject property for transportation. The siding is inactive. Details of Hazel Bishop operations were not available.

Records indicate that Stonco has operated at the site from 1979 to the present. Current employees at Stonco were not familiar with the historical operations of the plant. Operations at the plant included the manufacture and distribution of lighting products and components, particularly outdoor and industrial housings and components. Supplies, parts and electronic components were delivered to the receiving area and either stored in the receiving areas or moved to other storage areas located near the assembly areas.

Stonco assembled a variety of lighting fixtures and characterized their main work as light assembly with drilling and minor tapping. Stonco did not fabricate parts, but a portion of their operations involved the finishing of premade cast lighting housing. The housing boxes were finished in a closed system where they were powder coated using dry electrostatic deposition with baking enamel. Some items requiring minor machining or custom coating were sent to machining areas or to the wet paint room. Light housings and components were assembled on lines and stored on pallets.

Prior to 1985, Stonco had a wet paint finishing process. In contradiction of the plant personnel's contention that the paints were water based, hazardous waste manifests submitted to the NJDEP confirmed that wastes F001 and F002 (spent solvents) were last shipped out of Stonco in 1985, and a different waste stream was manifested after 1985. A site map (Map 7) of the Stonco Facility prepared in 1998 in support of Stonco's ISRA Application, identifies areas where chemicals and hazardous wastes were once stored. SA obtained New Jersey Right to Know information for the Genlyte Stonco facility and summarized the solvent use from 1992 to 2008. In it, the use of TCE and TCA was documented from 1992 to 1997. The reports indicated that ten gallons were on site every day and the use was in the machine shop. It is possible that the solvents were used in a closed parts washing system. NJDEP also obtained waste manifests from the NJDEP, Bureau of Hazardous Waste Management. The manifests confirmed that waste code F001, spent halogen solvent and sludge degreaser, were shipped from Stonco between 1982 and 1985.

During the 1990's, operations at Stonco resulted in recyclable trash (scrap metal, cardboard, paper, wooden pallets, etc.), general trash, municipal refuse and hazardous wastes that were disposed through certified haulers or recyclers. A compactor was used to consolidate recyclable paper products, and a dumpster for municipal trash was located near the hazardous waste storage area. (Map 7) All waste chemicals and residuals associated with the painting process, part machining, equipment cleaning and maintenance were reportedly handled and managed as hazardous waste. Wastes manifested after 1985 included liquid chemical wastes, solid chemical waste, spent acids, chromium and lead. These materials were accumulated into drums and stored in the hazardous waste storage areas. All drums were stored within portable secondary containment devices and the full drums were collected by a certified hazardous waste disposal for disposal off site. As of April 1999, there was no record of a hazardous waste discharge.

During Stonco's operation at the site, waste water discharges were reportedly limited to employee sanitary services, discharges from a pre-paint parts washer and building maintenance. Waste water discharges were made to the sanitary sewer system operated by the Joint Meeting of Essex and Union counties. The pre-paint parts washer incorporated five stages of cleaning including one detergent wash (caustic), two acidic agent rinses and two water rinses. The pre-paint parts washer was periodically cleaned of any non-liquid residues by a certified contractor who properly disposed any residuals offsite.

As the result of sampling their waste water effluent, Stonco was given an Administrative Notice by the Joint Meeting of Essex and Union Counties on March 10, 1998. The violation was for zinc concentrations exceeding permit levels. The violation was resolved when Stonco identified the source of the zinc as residue from the paint hook cleaning process which was being transferred into the parts wash system and then into the sanitary sewer system. The cleaning process was discontinued and the violation was resolved.

Two underground storage tanks (USTs), associated with the boiler room, were formerly located at the Stonco facility. The USTs had capacities of 500 and 10,000 gallons and contained No. 2 fuel oil for the plant boiler. The USTs were removed in December of 1985 and visual reports made during the removal indicated there was no release of heating oil. However, since there were no photographs, monitoring data or sampling data to confirm the soil conditions, Stonco and their consultants, Bousland, Bouck & Lee, Inc., now Arcadis (BBL), conducted soil sampling in the former UST excavations as part of a Site Investigation Report for the site to support their ISRA application. Two test pits were dug in the areas where the two USTs were formerly located and soil samples were collected in support of the UST closure (Map 7). Analysis of the soil samples indicated that total petroleum hydrocarbons (TPH) were detected at a concentration of 21,500 parts per million (ppm) exceeding the NJDEP Soil Cleanup Criteria (SCC) of 10,000 ppm. The same soil sample from which the high TPH concentrations were detected was analyzed for volatile organic compounds (VOCs) +10 library search compounds and tetrachloroethene (PCE) was detected at a concentration of 170 ppb. The PCE concentration was below the NJDEP SCC of 1,000 ppb. It is not known how PCE was introduced to the soil in this area. Consultants for Stonco concluded that since the visibly stained soils were excavated and removed and detected contamination was localized and horizontally delineated, no further action was necessary in relation to the UST excavations.)

Stonco submitted a Preliminary Assessment and Site Investigation Report to the NJDEP, Bureau of Field Operations ISRA Initial Notice Section in 1999. After their review of the report, the NJDEP had concerns over two items detailed in the report. The first concern was the elevated detection of zinc in a waste water discharge to the public sewer. The NJDEP asked for confirmation that all of the floor drains in the Stonco building discharged into the sanitary sewer. Stonco provided site maps that showed the floor drains were connected to the sanitary sewer line (Map 7)

The second concern resulted from information in the PA/SI Report that confirmed the presence of TPH at 21,500 ppm in sample A-4. The report also stated that because adjacent soil samples were below NJDEP SCC, the elevated concentration of TPH had been delineated horizontally. The NJDEP expressed concern that the soil contamination associated with the test pits was not delineated vertically and confirmed that an NFA would not be issued unless the TPH detection was vertically delineated.

BBL advanced an additional boring in the area where soil sample A-4 was collected. Two soil samples were collected from the soil boring at depths of 10 to 10.5 feet below ground surface (bgs) and 12 to 12.5 bgs from a Geoprobe equipped with split spoon samplers and analyzed for TPH. The results of the analysis indicated TPH concentrations of 121 ppm and 1,720 ppm, respectively and each sample was below the SCC of 10,000 ppm. In addition, a soil sample was collected for VOC analysis at the interval 12 to 12.5 bgs and the analytical result indicated that VOCs were not detected. After a series of letters addressing minor issues were exchanged between Stonco and the NJDEP, Stonco submitted a Negative Declaration Affidavit to the NJDEP, Bureau of Field Operations in October of 2000. The NJDEP followed up with a NFA letter to Stonco also in October 2000.

The facility was operated by the Stonco Lighting Division (Stonco) from 1979 to 2008, when Philips Electronics North America (Philips) took ownership. Stonco is currently listed as a Philips Group Brand. According to the Philips Project Manager for the site, Stonco ceased operations on April 1, 2011 and 12 employees to oversee the removal of the equipment.

AOC SUMMARY TABLE

AOC Name	Source Type	CERCLA Exempt	Physical State	Waste Quantity
1) Former UST area and floor drain discharge pipe	Other	No	Liquid	Unknown
2) Area adjacent to hazardous waste storage area	Other	No	Liquid	Unknown

PART III: PERMITS

A. NJPDES

Number	Date Issued	Expiration Date	Formation or Water Body Discharged To
N/A			

B. New Jersey Air Pollution Control Certificates

Plant ID No.:
No. of Certificates: N/A
Equipment Permitted: N/A

C. BUST Registration

Registration No.: USTs were not registered. Closed in 1985.
No. of Tanks: 2

Tank No.	Capacity (gallons)	Contents of Tank	Status
UST 1	500	Heating oil	Removed in 1985
UST 2	10,000	Heating oil	Removed in 1985

D. **RCRA Status (TSD, Generator, Protective Filer, etc.)** N/A

E. **Other Permits (RCRA, NRC, etc.)**

Issuing Agency	Permit Type	Permit No.	Date Issued	Expiration Date
N/A				

PART IV: SOIL EXPOSURE

Describe soil type. Include soil series, composition of the soil and permeability of the soil.

The soil type at the site is listed in the Soil Survey of Union County New Jersey as Urban Land.

For each sampling event, identify the sampler and date of sampling and list the name, address and certification number of the lab which performed the analyses. State who conducted the quality assurance review of the data and summarize any data qualifications.

Over the years, two soil sampling events occurred at Stonco. During the first event, soil samples were collected as part of confirmatory sampling during the removal of a UST on the southeastern side of Stonco. The second soil sampling event was conducted by NJDEP, SA as part of the initial SI.

Stonco reportedly used two heating oil USTs to store fuel to heat the plant until December 1985 when they were removed. Reporting requirements to document the proper closure of USTs were not required in 1985, but there were reports that visual observations made at the time of the UST closures indicated that the USTs had not leaked. In 1998, Stonco triggered an evaluation under ISRA to effect a trade involving an ownership transition. As part of the ISRA submission, a Site Investigation Report was prepared for Stonco addressing a single AOC which was the area in which the two USTs were removed. Because there was no documentation of soil conditions at the closing, Stonco and their consultants BBL advanced two test pits in 1999 to assess the areas where the USTs were reported to be located. The areas were selected based on interviews with factory personnel and the presence of a former vent pipe.

Excavation A: 10,000 gallon heating oil UST – In 1999, six soil samples were collected from what was thought to be the UST excavation floor. During the preliminary soil excavation, small areas of dark soil were encountered in random locations in the excavation. BBL screened the dark soils and segregated it for disposal. All six soil samples (Pit A1 – A6) were analyzed for TPH and two samples were analyzed for VOC+10. The results are summarized in the table below. (Map 7)

Excavation B: 500 gallon heating oil UST – In 1999, two soil samples were collected from what was thought to be the UST excavation floor. The two samples were analyzed for TPH and none were analyzed for VOCs (Pit B-1 and B-2). The presence of darkened soil was not reported.

(Map 7) Information concerning the laboratory used and Quality Assurance Data was unavailable.

Sample ID	TPH Concentration (ppm)	VOC Detected	VOC Concentration (ppb)	NJDEP SCC (ppb)	Tentatively Identified Compounds (ppb)
Pit A-1	ND	NA	-		-
Pit A-2	40	NA	-		-
Pit A-3	410	tetrachloroethene	170	1,000	78,200
Pit A-4	**21,500**	ND	ND	**10,000**	95,300
Pit A-5	111	NA	-		-
Pit A-6	181	NA	-		-
Pit B-1	ND	NA	-		-
Pit B-2	ND	NA	-		-

ppm – parts per million ppb – parts per billion (Att F)
NA – Not Analyzed ND – Not Detected
VOC – volatile organic compound SCC – NJDEP Soil Cleanup Criteria
Bolded Concentration – Exceeds the SCC of 10,000 ppm

The analysis of the soil samples indicated that a release from the 500 gallon UST in Pit B had not occurred. In Pit A, however, a TPH concentration of 21,500 ppm was detected in sample A-4 exceeding the NJDEP SCC of 10,000 ppm. BBL reasoned that since soil samples collected on either side of sample A-4 were well below the SCC, the exceedance detected in A-4 was localized. BBL also segregated the dark soil encountered during the excavation and disposed a total of ½ cubic yard of the material. PCE was detected in soil sample A-3 at a concentration of 170 ppb, below the SCC of 1,000 ppb. Because the PCE detection was below the NJDEP SCC, BBL made no mention of its detection in the Conclusion/Recommendation section of the SI. BBL concluded that:

No further action was recommended at this AOC based on the localized nature of the biased sample (A-4), the absence of VOCs in the sample, and the removal of darkened soil from the base of the excavation at this location.

NJDEP responded to Stonco in a letter from the Bureau of Field Operations, ISRA Initial Notice Section, dated January 2000 and required that additional sampling be conducted because the TPH detected in soil sample A-4 had not been delineated vertically. In June of 2000, BBL went back to the Stonco facility and advanced a soil boring within the test pit they had formerly dug. They screened soils down to 13 feet and collected soil samples at depths of 10 to 10.5 feet and 12 to 12.5 feet bgs. It is interesting to note that the highest reading on the photoionizaton detector (PID) used to screen the two sampling intervals was 12.4 ppb. However, in the interval 11 to 11.5 feet bgs the PID detected 59.4 ppb VOCs but a sample was not collected. The 11 to 11.5 foot interval may have been an appropriate interval in which to sample for VOCs. The results of the TPH analysis for soil samples collected at 10 to 10.5 feet and 12 to 12.5 feet bgs was 121 ppm and 1,720 ppm respectively, both less than the SCC of 10,000 ppm. Table 2 of the BBL letter report indicates that soil samples for TPH and VOCs were collected at each of

the two sampling intervals. However, in only the interval from 12.0 to 12.5 feet bgs was VOC data reported and it indicated that there were no detectable concentrations of target VOCs. VOCs, if analyzed at all, were not reported in the 10 to 10.5 foot interval. There were no analytical data sheets accompanying the report. Based upon the apparent vertical delineation, BBL recommended no further action for the UST area and NJDEP accepted.

Tabulate sample numbers and the associated Area of Concern or describe the sample location. Identify samples which establish background conditions.

The second subsurface investigation at the Genlyte/Stonco site was initiated in September 2010. SA advanced nine borings from which 6 soil samples were collected. SA used a Geoprobe duo-core method where soil is retrieved continuously in a clear macro sleeve (tube) and from which a sample is collected. SA described and screened the soil boring with a TVA organic vapor analyzer. One soil sample was collected from each of four borings (SB-1, SB-3, SB-4 and SB-5) and an additional sample was collected from boring SB-3 at a discrete interval. The samples were collected at the intervals where the highest concentrations of organic vapors were detected with the TVA. (Map 7)

Of the 6 soil samples collected from the Stonco AOC's, only soil samples SB-3B and SB-5B had low detections of PCE. In soil samples SB-5A and SB-5B, VOCs related to petroleum were detected. Most of the soil samples were submitted to the USEPA Region 2 Laboratory in Edison, New Jersey and the data was validated by EPA. Soil samples SB-5A and SB-5B were analyzed by the NJDEP Mobile Lab.

Sample ID	Date/Collector	Depth (bgs)	Area of Concern
SB-1S	9/9/10 - SA	8– 8.5	Upgradient Sample - background
SB-3S	9/7/10 – SA	4.5 - 5	Hazardous waste storage area
SB-3B	9/7/10 - SA	10.5 – 11	Hazardous waste storage area
SB-4S	9/7/10 - SA	10.5 – 11.0	Chemical storage area
SB-5A	9/1/10 - SA	13 – 13.5	UST area and floor drain discharge
SB-5B	9/1/10 - SA	15.5 - 16	UST area and floor drain discharge

(Map 9)

Tabulate contaminants identified in the soil. Include sample number, depth, contaminant levels and corresponding NJDEP Soil Remediation Standard.

Sample ID	Date/Collector	Depth (bgs)	Detected Compounds	Concentration (ppm)	NJDEP SRS (ppm)
SB-1S	9/9/10 - SA	8– 8.5	ND		
SB-3S	9/7/10 – SA	4.5 - 5	ND		
SB-3B	9/7/10 - SA	10.5 – 11	tetrachloroethene	0.011	1
SB-4S	9/7/10 - SA	10.5 – 11.0	ND		
SB-5A	9/1/10 - SA	13 – 13.5	Isopropylbenzene	0.160 J	
			n-propylbenzene	0.190 J	
			1,3,5,trimethylbenzene	0.060 J	
			1,2,4 trimethylbenzene	1.420	
			Sec-butylbenzene	1.520	
			4-isopropyltoluene	0.550	
			naphthalene	1.220	100
SB-5B	9/1/10 - SA	15.5 - 16	tetrachloroethene	0.040 J	1
			sec-butylbenzene	0.110 J	
			naphthalene	0.660	100

ND – Non-detect (MAP 8)
J – Estimated Concentration
SRS – Soil Remediation Standard

In July of 2011, the NJDEP along with Philips Lighting installed eight monitoring wells on the Stonco site. Soil samples were not collected during the installations but continuous soil cores were collected and descriptions made from monitoring wells MW-1 to MW-4, MW-6 and MW-7. The draft logs prepared by Haley and Aldrich are included in Attachment B.

Discuss contaminants identified in the soil above background and remediation standards and provide the rationale for site attribution. State whether Level 1 or Level 2 contamination is present.

During their investigation in September 2010, SA collected soil samples from four borings and while several compounds were detected, none exceeded their NJDEP Soil Remediation Standard (SRS). PCE was detected in soil borings SB-3 (0.011 ppm), which was located in the area where the hazardous waste storage area was formerly located, and in SB-5 (0.040 ppm), where the former USTs and floor drain discharge piping were located. Each detection was far below the SRS of 1 ppm. In 1999, TPH at a concentration of 21,500 ppm was detected during the closure and removal of a heating oil UST in the area of soil boring B-5. The current Remediation Standard for TPH is 10,000 ppm. Based upon these results, a release to soil above background but below the NJDEP SRS has been documented.

Total area of surficial contamination in square feet: N/A

If no soil sampling has been conducted, discuss areas of potentially contaminated soil, areas that are visibly contaminated or results from soil gas surveys.
Soil sampling was conducted.

Number of people occupying residences or attending school or day care on or within 200 feet of the site: 50
Number of workers on or within 200 feet of the site: 150
Number of on-site employees: 50

Identify terrestrial sensitive environments within 200 feet of observed contamination.
None were identified

Determine if any commercial agriculture, silviculture, livestock production or grazing are present within 200 feet of observed contamination.
None were identified.

PART V: GROUND WATER ROUTE

A. HYDROGEOLOGY

Describe geologic formations and the aquifer(s) of concern. Include interconnections, confining layers, discontinuities, composition, hydraulic conductivity and permeability.

Ground water in Union County occurs in the voids of unconsolidated stratified drift deposits of Pleistocene age and in joints and fractures of the Brunswick Formation and Watchung Basalt of late Triassic Age. The Brunswick Formation consists of thin-bedded shale, mudstone and sandstone with color variations of reddish-brown to grey. The reddish-brown color originates from reworked hematite which comprises 5 to 10 per cent of the formation. Minerals of the Brunswick Formation include quartz, illite, muscovite, feldspar and small amounts of calcite and gypsum.

The Watchung Basalt consists of three extensive basaltic lava sheets intercalated with sedimentary rocks of the Brunswick Formation. Two of the three lava sheets occur in Union County and form the First and Second Watchung Mountains.

Unconsolidated sediments deposited by glaciers or glacier melt water during the Pleistocene Epoch mantled the bedrock surface in Union County. These glacial till deposits consist of clay, silt, sand, gravel, cobbles and boulders of glacial, glaciolacustrine or glacial fluvial origin. Aquifer tests conducted on a site near Stonco showed that permeability values for the dense glacial till overburden ranged between 10^{-2} cm/sec and 10^{-5} cm/sec indicating low permeability.

The Pleistocene sediments in the bedrock channels consist of unstratified and stratified clay, silt, sand and gravel. Only the sand and gravel deposits of the stratified drift will yield large quantities of water to the wells.

The Brunswick Formation of Late Triassic age is the major aquifer in Union County. Water occurs in joints and fractures which become progressively tighter and fewer with increasing depth below land surface. The joint and fracture system in which ground water is stored may intersect each other so that water can move vertically as well as horizontally. Ground water occurs in both confined and unconfined conditions in the Brunswick Formation. Unconfined ground water occurs mainly in upland areas where overlying unconsolidated sediments are thin or absent. In the lowland areas in the southern and eastern potions of Union County, the rocks are mantled by unconsolidated Pleistocene deposits containing silt and clay beds which may confine water in the underlying rocks.

Wells tapping the Brunswick Formation generally draw water from several water-bearing zones. In areas where the rocks are exposed or covered by a thin layer of unconsolidated sediments, the shallow water-bearing zones contain unconfined water to depths between 200 and 300 feet. Wells penetrating to depths between 200 and 600 feet generally have the greatest yields.

A network of approximately 20 monitoring wells was constructed on the adjacent Red Devil property, west of Stonco. The total depths of the shallow monitoring wells range between 30 and 40 feet deep and ground water depths average 23 feet below ground surface (bgs). At several of the monitoring well locations at Red Devil, wells were installed to the top of bedrock. These monitoring wells are designated with a 'D' after the well ID number. The depth of the deep wells range between 50 and 70 feet bgs and the ground water depths also average 23 feet bgs

The ground water flow direction calculated from both the shallow and deep monitoring wells is toward the south-southwest from Stonco toward the Hickory Manor Condominiums. Monitoring well MW-24, located on the Vauxhall Road right-of-way and within several feet of the Stonco site, is the most easterly monitoring well and is located hydraulically upgradient relative to the condos. EcolSciences, the consultants for the Red Devil Property, produced a series of ground water flow direction maps from June 2004 to December 2007. Maps were produced for both the shallow and deep monitoring wells and all except the December 2007 ground water elevation maps are included in. The December 2007 Shallow Ground Water Elevation Map (Map 6) is included in the Figures Section.

As part of the ESI conducted by SA, eight additional monitoring wells were installed by SA and Philips Lighting in July 2011. The construction details and results of ground water sampling are summarized in this section and in (Attachment B).

Depth to water table: 25 feet
Depth to aquifer of concern: 25 feet
Depth from lowest point of waste disposal/storage to highest seasonal level of the saturated zone of the aquifer of concern: to be determined: 0 feet, aquifer is contaminated

Thickness and permeability of the least permeable layer between the ground surface and the aquifer of concern: 5 to 25 feet bgs, 10^{-4} cm/sec (fractured shale)
Thickness of aquifer: 10,000 feet
Direction of ground water flow: south-southwest
Net precipitation Factor Value: 6
Karst: No

Wellhead Protection Area within 4 miles of the site: Yes
Does a waste source overlie a Wellhead Protection Area: No

B. MONITORING WELL INFORMATION

Briefly discuss why the monitoring wells were installed.

The NJDEP and Philips Lighting installed 8 monitoring wells in July 2011. The NJDEP required the monitoring wells for their ESI and Unknown Source Investigation and Philips Lighting needed the wells for their ECRA submittals. The NJDEP installed monitoring wells MW-4, MW-5 and MW-5D and Philips installed MW-1, MW-2, MW-3, MW-6 and MW-7. The following table summarizes construction details for the eight newly installed monitoring wells and the three existing monitoring wells (MW-23, MW-24 and MW-25) that were sampled as part of this ESI.

Sample ID/ Install Date	Diameter (inches)	TD (ft bgs)	Screen depth (ft bgs)	Installation Method	Justification
MW-1 7/11	2	35	20 - 35	Sonic	Background
MW-2 7/11	2	40	20 - 40	Sonic	AOC. Hazardous waste storage area and railroad siding
MW-3 7/11	2	40	20 - 40	Sonic	AOC. Former UST and sewer pipe
MW-4 7/11	4	40	20 - 40	Air Rotary	Downgradient and between Stonco and Hickory Manor
MW-5 7/11	4	40	20 - 40	Air Rotary	Downgradient of Haz. Waste Storage area at Premesco
MW-5D 7/11	4	76	63 - 73	Air Rotary	Same as above but at the top of bedrock.
MW-6 7/11	2	40	25 - 40	Sonic	GW flow direct. info and possible influence from Premesco
MW-7 7/11	2	40	20 - 40	Sonic	Same as above
MW-23 2007	2	40	25 – 40	HSA	Offsite. Downgradient of Premesco and X-gradient Stonco
MW-24 2007	2	42	27 – 42	HSA	Offsite. Downgradient of Stonco and Premesco
MW-25 2007	2	42	27 - 42	HSA	Offsite. Hickory Manor Access Road

bgs – Below Ground Surface HSA – 4¼" Hollow Stem Auger

Ten of the eleven monitoring wells (excepting MW-5D) sampled on August 3, 2011 were installed with the intent to assess the first water encountered. During the drilling of the monitoring wells, moisture was typically encountered at approximately 35 feet bgs. In MW-5, moisture was encountered at 36 feet bgs and a prolific water zone was encountered at 38 to 40 feet bgs. The total depth (TD) of MW-5 corresponded with the TDs of the offsite monitoring wells MW-23, 24 and 25. SA installed 20 feet of screen in the shallow wells because known static water levels in the MWs at Red Devil approached 20 feet bgs.

Monitoring well MW-24 is located on the northern right-of-way of Vauxhall Road, very close to the western portion of the Stonco property. (Map 8) Monitoring well MW-24 is screened at the top of the shallow aquifer to a depth of 42 feet bgs with 15 feet of screen at its base. The monitoring well was installed by EcolSciences, consultants to ARC Union, LLC, the developers of the Red Devil property, to augment existing information and refine the ground water flow direction at Red Devil. Ground water sampling results on the Red Devil site enabled EcolSciences to conclude that an off site source of contamination was affecting the ground water quality on their property. (Map 6)

Monitoring well MW-23 was installed in the northern right-of-way of Vauxhall Road very close to the adjacent Premrefco/Premesco property. Monitoring well MW-24 and MW-23 are ideally positioned to assess ground water quality hydraulically downgradient of three AOCs on the northwestern portion of the Premesco site, but are also useful in establishing the ground water flow direction at the Stonco site. Monitoring well MW-25 was installed by EcolSciences in the main entrance driveway of the Hickory Manor Condominiums, on the southern side of Vauxhall Road. The monitoring well is located hydraulically downgradient and approximately 700 feet south of the former UST area and floor drain discharge point on the Stonco property.

The following tables summarize the analysis of ground water samples collected from the eight monitoring wells installed on the Stonco property and the three shallow MWs installed offsite by EcolSciences during their investigation of the Red Devil site. The monitoring well locations are depicted on Map 9. The initial ground water sampling event was conducted by EcolScience in December 2007. The MWs installed on the Stonco site in July 2011 and the three shallow MWs installed by EcolScience were sampled on August 3, 2011 and analyzed by both the NJDEP Mobile Lab and the EPA DESA Region 2 Laboratory. (Attachment C and D) All data was qualified.

Tabulate contaminants identified in each well. Include well number, contaminant levels and corresponding NJDEP Ground Water Quality Standard (GWQS).

		Shallow Monitoring Wells		NJDEP Mobile Lab	USEPA Laboratory	
Sample ID	Screen Depth (feet bgs)	Contaminant	Concentration 12/2007 (parts per billion)	Concentration 08/03/2011 (parts per billion)	Concentration 08/03/2011 (parts per billion)	NJDEP GWQS
MW-1	20 - 35	toluene	-	2.4	bdl 5	1000
		tetrachloroethene	-	0.27	n/d	1
MW-2	20 - 40	toluene	-	3.5	bdl 5	1000
		vinyl chloride	-	0.3 J	bdl 5	5
		cis-1,2-dichloroethene	-	43	43	70
		trichloroethene	-	2.36	bdl 5	1
		tetrachloroethene	-	22.7	25	1
		propene		n/d	50 NJ	
MW-3	20 - 40	cis-1,2-dichloroethene	-	2.3	bdl 5	70
		trichloroethene	-	4.2	bdl 5	1
		tetrachloroethene	-	2.9	bdl 5	1
MW-4	20 - 40	1,1,1-trichloroethane	-	0.7	bdl 5	30
		1,1-dichloroethene	-	1.4	bdl 5	1
		cis-1,2-dichloroethene	-	3.7	bdl 5	70
		trichloroethene	-	47.6	50	1
		tetrachloroethene	-	0.9	bdl 5	1
MW-5	20 - 40	1,1,1-trichloroethane	-	35.2	40	30
		1,1-dichloroethene	-	156.5	190	1
		cis-1,2-dichloroethene	-	2. 9	bdl 5	70
		trichloroethene	-	270.7	300	1
		tetrachloroethene	-	4.9	7	1

				NJDEP Mobile Lab	USEPA Laboratory	
Sample ID	Screen Depth (feet bgs)	Contaminant	Concentration 12/2007 (parts per billion)	Concentration 08/03/2011 (parts per billion)	Concentration 08/03/2011 (parts per billion)	NJDEP GWQS
MW-6	20 - 35	cis-1,2-dichloroethene	-	0.2 J	bdl 5	70
		benzene	-	0.1 J	bdl 5	1
		toluene	-	1.7	bdl 5	1000
		trichloroethene	-	**3.6**	bdl 5	1
		tetrachloroethene	-	0.3 J	bdl 5	1
MW-7	20 - 40	1,1-dichloroethene	-	0.4	bdl 5	1
		benzene	-	0.1 J	bdl 5	1
		toluene	-	0.1 J	bdl 5	1000
		trichloroethene	-	**2.1**	bdl 5	1
		tetrachloroethene	-	n/d	bdl 5	1
MW-23	20 - 40	1,1-dichloroethene	*	**42.3**	**38**	1
		trichloroethene	**900**	**397.1**	**330**	1
		tetrachloroethene	**4.9**	**2.5**	bdl 5	1
MW-24	25 - 40	1,1,1-trichloroethane	*	27.5	**31**	30
		1,1-dichloroethane	*	0.45	bdl 5	50
		1,1-dichloroethene	*	**58.7**	**62**	1
		trichloroethene	**350**	**269**	**270**	1
		1,1,2-trichloroethane	*	0.3 J	bdl 5	3
		tetrachloroethene	**11**	**3.1**	bdl 5	1
MW-25	27 - 42	1,1,1-trichloroethane	*	19.4	19	30
		1,1-dichloroethane	*	0.3 J	bdl 5	50
		1,1-dichloroethene	*	**45.9**	**29**	1
		trichloroethene	**230**	**216.0**	**210**	1
		tetrachloroethene	**4.0**	**2.5**	bdl 5	1

GWQS – Ground Water Quality Standards
Bolded concentrations exceed NJDEP Ground Water Quality Standards
- Wells not in existence at time of 12/07 sampling
dns – Did not sample

J – Estimated concentration, below detection limits
NJ – There is presumptive evidence that the analyte is present. Reported value is an estimate.
bdl 5 – below detection limit – detection limit of 5 ppb
* Only the TCE and PCE concentrations for the shallow monitoring wells, MW-23, MW-24 and MW-25 were available to SA for the 12/2007 sampling event.

		Deep Wells		**NJDEP Mobile Lab**	**USEPA Laboratory**	
Sample ID	**Screen Depth** (feet bgs)	**Contaminant**	**Concentration 12/2007** (parts per billion)	**Concentration 08/03/2011** (parts per billion)	**Concentration 08/03/2011** (parts per billion)	**NJDEP GWQS**
MW-5D	63 - 73	**1,1-dichloroethene**	-	**10.5**	**13**	**1**
		1,1-dichloroethane	-	0.2	bdl 5	**50**
		cis-1,2-dichloroethene	-	0.12	bdl 5	**70**
		1,1,1-trichloroethane	-	5.8	7.1	**30**
		trichloroethene	-	**57.1**	**59**	**1**
		tetrachloroethene	-	**2.5**	bdl 5	**1**
MW-23D	56 - 66	**1,1-dichloroethene**	**11**	dns	dns	**1**
		trichloroethene	**350**	dns	dns	**1**
MW-24D	55 - 65	**1,1-dichloroethene**	**72**	dns	dns	**1**
		cis-1,2-dichloroethene	1.2	dns	dns	70
		1,1,1-trichloroethane	16	dns	dns	30
		trichloroethene	**240**	dns	dns	**1**
		tetrachloroethene	**4.8**	dns	dns	**1**
MW-25D	55-65	**1,1-dichloroethene**	**98**	dns	dns	**1**
		1,1,1-trichloroethane(TCA)	20	dns	dns	30
		trichloroethene	**400**	dns	dns	**1**
		tetrachloroethene	**6.4**	dns	dns	**1**

GWQS – Ground Water Quality Standards
Bolded concentrations exceed NJDEP Ground Water Quality Standards
- Wells not in existence at time of 12/07 sampling
* Only the TCE and PCE concentrations for the shallow monitoring wells, MW-23, MW-24 and MW-25 were available to SA for the 12/2007 sampling event.
dns – Did not sample

dns – Did not sample

Discuss contaminants identified in the monitoring wells above background and the ground water quality standards and provide the rationale for site attribution. State whether Level 1 or Level 2 contamination is present.

The primary reason that Stonco was investigated was its known history of using chlorinated solvents and the detection of PCE and TCE in the soil and ground water in its two AOCs. The two AOCs are located on the eastern side of Stonco and the installation of monitoring well MW-3 was to assess ground water in AOC 1 and MW-2 was to assess ground water in AOC 2. The subsequent collection of ground water samples resulted in the conclusion that Stonco was responsible for the release of chlorinated solvents on the eastern part of their site. PCE was detected in concentrations of 2.9 ppb in MW-3 and 25 ppb in MW-2, both above the NJDEP Ground Water Quality Standard (GWQS) of 1 ppb. TCE, also with a GWQS of 1 ppb, was detected in MW-3 at a concentration of 4.2 ppb and in MW-2 at 2.4 ppb. (Map 10)

Having established that a release had occurred at Stonco, it was the purpose of the ESI to determine the potential for off-site migration of the contaminants. Monitoring well MW-4 was installed in a position between the AOC's at Stonco and the Hickory Manor Condominiums. Preliminary information, later confirmed by contemporary monitoring well gauging, indicated that MW-4 was indeed hydraulically downgradient of AOC 1 and AOC 2. Analysis of a ground water sample from MW-4 indicated that PCE was detected at a concentration of 0.9 ppb and TCE was detected at 50 ppb. Analysis of the ground water associated with AOC 1 and 2 indicated that PCE was the most prevalent contaminant at the AOCs. While SA concludes that a release of chlorinated solvents was documented at Stonco AOC 1 and 2, it is unlikely that the contaminants migrated a significant distance from the areas of release.

Ground water samples collected from monitoring wells located on the western portion of the Stonco site confirmed that high concentrations of TCE and PCE as well as 1,1 dichloroethene (DCE), were detected in ground water samples collected from monitoring wells located downgradient of Premrefco. Monitoring well MW-5 was installed downgradient of a former hazardous waste storage area at Premrefco. Records indicated that Premrefco used TCE in its earlier history but switched to 1,1,1-trichloroethane (TCA). MW-5 had concentrations of TCE at 300 ppb and TCA 40 ppb. The TCA exceeded the GWQS of 30 ppb and its presence in relation to its use at Premrefco is noteworthy.

Monitoring wells MW-23, MW-24 and MW-25, which were installed in 2007, were also sampled in August 2011. (Map 10) Each of these monitoring wells are downgradient of Premrefco with MW-23 immediately adjacent to the southern edge of the Premrefco property and MW-25 located in the access driveway to the Hickory Manor Condominiums. A SI Report for the Premrefco Site prepared by SA in March 2010 confirmed that significant amounts of chlorinated solvents were released from Premrefco. Chlorinated solvents, especially TCE was known to have been used from 1982 (possibly earlier) to 2005. TCE was detected in MW-23 at a concentration of 900 ppb in December 2007 and 330 ppb in August 2011. In MW-24, located on the southern edge of the Stonco site, TCE was detected at a concentration of 350 ppb in December 2007 and 270 ppb in August 2011. Finally, in MW-25, TCE was detected at a concentration of 230 ppb in December 2007 and at 210 ppb in 2011. The contaminant gradient indicates that there is likely contaminant source material located at Premrefco.

Monitoring wells MW-6 and MW-7 were installed between the hazardous waste storage area at

exceeding its GWQS of 1 ppb, was TCE detected at 3.6 ppb in MW-6 and 2.1 in MW-7. These concentrations of TCE are insignificant as far as the USI. The low concentrations of detected compounds in the two monitoring wells are significant because they help to define the limits of the contaminant plume from both source areas.

SA installed monitoring well MW-5D as a deep monitoring well adjacent to MW-5. MW-5D was installed to a depth of 73 feet and while it could not be definitively confirmed, it is likely that the total depth of the monitoring well approached the top of bedrock. The analysis of a ground water sample collected from MW-5D confirmed the presence of TCE at a concentration of 59 ppb and PCE at a concentration of 2.5 ppb. The three deep monitoring wells, MW-23D, MW-24D and MW-25D, installed in 2007 were not sampled in August 2011, but the concentrations of TCE detected in the three monitoring wells was significantly higher, ranging between 240 to 400 ppb, than the 50 ppb detected in MW-5D.

Ground Water Contour Map

All of the shallow ground water monitoring wells were gauged in conjunction with the sampling event on August 3. The eight wells installed by SA and Philips were surveyed by Lippincott and Jacobs on August 8, 2011. The following table presents the gauging and surveying data.

Sample ID	Well Diameter (inches)	Total Well Depth (ft bgs)	Depth to GW (ft) 08/03/2011	PVC Rim Elevation (FT AMSL)	GW Elev (ft) 08/03/2011
MW-1	2	35	18.69	133.59	114.90
MW-2	2	40	29.42	131.14	101.72
MW-3	2	40	30.80	131.28	100.48
MW-4	**4**	**40**	**34.83**	**131.17**	**96.34**
MW-5	**4**	**40**	**30.40**	**129.11**	**98.71**
MW-6	2	40	29.89	131.67	101.78
MW-7	2	40	34.34	132.71	98.37
MW-23 *	2	40	27.00	125.82	98.82
MW-24 *	2	42	29.81	127.14	97.33
MW-25 *	2	42	30.50	127.24	96.74
MW-5D	**4**	**73**	**28.91**	**128.80**	**99.89**

Bolded - MWs installed by the NJDEP in July 2011
* MWs installed by EcolScience in 2007
Remaining MWs installed by Philips Stonco in July 2011

SA compiled the surveying and gauging area to create a ground water flow direction map. (Map 11) During the installation of the Philips-Stonco wells using sonic drilling methods, monitoring well MW-1 was completed to a depth of 35 feet bgs. SA, while expressing concerns that the final depth did not correspond to the 40 foot depths at which SA completed their wells, did not push the Philips consultants to go deeper. However, after concerns with monitoring well uniformity and a

general knowledge of the local stratigraphy, SA requested that all other monitoring wells be advanced to 40 feet. Consultants for Philips complied with this request. Because the calculated ground water elevation for MW-1 was at least 10 feet shallower than each of the nine other monitoring wells, SA decided the elevation on MW-1 was anomalous. Its presence on the ground water contour map does not affect the overall ground water flow direction.

Map 11, the ground water contour map, clearly showed that the ground water flow direction was south, toward the Hickory Manor Condominiums.

Chlorinated solvents at concentrations exceeding background levels and the NJDEP Ground Water Quality Standards and attributable to Stonco were detected at Stonco on the eastern portion of the site. Chlorinated solvents attributable to Premrefco and at high concentrations were detected on the western portion of the Stonco site. Due to the presence of TCE, PCE, DCE and TCA, level 1 contamination is present.

C. GROUND WATER SAMPLING

Discuss any other ground water sampling that has occurred. For each sampling event, identify the sampler and date of sampling and list the name, address and certification number of the lab which performed the analyses. State who conducted the quality assurance review of the data and summarize any data qualifications.

Between September 8 and October 19, 2010, SA advanced nine borings on the Genlyte – Stonco property to collect soil and ground water samples. (Map 8) The borings were placed to assess the impact of the two AOCs identified at Stonco and the AOC identified at Premrefco. The unconsolidated aquifer at Stonco occurs within glacial till sediments and the advancement of the borings was hampered by large cobbles. The collection of ground water samples was difficult due to the suspension of fine sediments in the ground water. The sediments in the ground water prevented the collection of samples using the check valve and tubing, surge technique. SA discovered that the most effective method to collect ground water samples was to use 2.5-inch steel geoprobe rods and advance them straight down to a depth of 50 feet. Temporary wells consisting of ten feet of 1 inch well screen and 40 feet of PVC riser were placed inside the geoprobe rods prior to pulling them up and exposing the screen to the aquifer. The column of ground water accumulating in the temporary wells was typically 10 to 30 feet thick. SA determined that temporary well points set at depths less than 30 feet lacked sufficient ground water infiltration to collect a sample.

The following table summarizes the analysis of ground water samples collected from the nine borings during the Genlyte – Stonco SI. The USEPA Laboratory in Edison, NJ performed the analysis of the samples and the quality assurance review. The ground water samples were analyzed under the title 'KCS Lighting Inc #10090014.'

Tabulate sample numbers and the associated Area of Concern or describe the sample location. Identify samples which establish background conditions.

NJDEP, SA - September 2010 Temporary Well Points	
SAMPLE #	**ASSOCIATED AOC/SAMPLE LOCATION**
SB-1	Background Sample
SB-2	On site, Railroad Spur
SB-3	On site, within Hazardous Waste Storage Area
SB-4	On site, downgradient of Hazardous Waste Storage Area
SB-5	On site, within former UST Area
SB-7	On site, downgradient of Southeastern AOCs
TW-9	On site, downgradient of Premrefco Haz Waste Storage Area
TW-10	On site, downgradient of Premrefco Haz Waste Storage Area
TW-11	On site, cross gradient of Premrefco Haz Waste Storage Area

Tabulate contaminants identified in ground water. Include sample number, contaminant levels and corresponding NJDEP Ground Water Quality Standard (GWQS).

WESTERN SAMPLES PREMREFCO/PREMESCO AOCS				
SAMPLE #/ Date	SCREEN DEPTH (feet bgs)	CONTAMINANT	CONCENTRATION (ug/L)	NJDEP GWQS (ug/l)
SB-7 **	39.5 – 49.5	Chloroform	0.46 J	1
10/19/10		1,1-dichloroethane	0.74	50
		1,1-dichloroethene	**29.1**	1
		cis-1,2-dichloroethene	1.8	70
		tetrachloroethene	**1.3**	1
		1,1,1-Trichloroethane	3.5	30
		trichloroethene	**260**	1
TW-9	39 - 49	**1,1-dichloroethene**	**310**	1
9/9/10		cis-1,2-dichloroethene	5.2	70
		tetrachloroethene	**11**	1
		1,1,1-trichloroethane	**100**	**30**
		trichloroethene	**670**	1
TW-10	35 - 49	1,1-dichloroethane	5	50
9/8/10		**1,1-dichloroethene**	**200**	1
		1,1,1-trichloroethane	**79**	**30**
		trichloroethene	**250**	1
TW-11	39.5 – 49.5	**1,1,1-trichloroethane**	**240**	**30**
9/9/10		**trichloroethene**	**21**	1

TW – Tessler and Weiss (Maps 8 and 10)
** - Analysis by Accutest Laboratories through Philips

Discuss contaminants identified in ground water above background and the ground water quality standards and provide the rationale for site attribution. State whether Level 1 or Level 2 contamination is present.

The results of the subsurface investigation indicated that TCE, TCA and their breakdown products were detected in ground water samples collected from the Stonco site. The ground water samples collected from the western side of Stonco had the prefix of TW. TW stands for Tessler and Weiss which is another name for Premrefco/Premesco. The TW designations were added because the borings were advanced to determine the ground water impacts of AOCs located on the Premrefco/Premesco property. Although the borings are located on the Stonco property, there are no AOCs located on the western side of the Stonco property. Ground water sample SB-

7 was located downgradient of both the western samples and the eastern samples. (Maps 8 and 10) The highest contaminant concentrations detected on the Stonco property were located on the western side. TCE was detected at a concentration of 670 ppb, 1,1-DCE was detected at a concentration of 310, TCA was detected at a concentration of 240 ppm and PCE was detected at a concentration of 11 ppm. Each compound exceeded their NJDEP GWQS and it is likely that Premrefco/Premesco was responsible for the contamination in the 'TW' series ground water samples.

		EASTERN SAMPLES GENLYTE - STONCO AOCS		
SAMPLE #/ Date	**SCREEN DEPTH (feet bgs)**	**CONTAMINANT**	**CONCENTRATION (ug/L)**	**NJDEP GWQS (ug/l)**
SB-1 9/9/10	35 - 45	No detections	n/a	n/a
SB-2	34 - 49	Acetone	24	6,000
9/8/10		cis-1,2-dichloroethene	12	70
		trichloroethene	**9.7**	1
		tetrachloroethene	**8.7**	1
		Hexanal *	7.2	
		cis-1-Butene, 1-Butoxy	7.5	
		heptane, 2,5-Dimethyl	11	
		nonanal *	7.9	
SB-3	33 - 43	Acetone	10	6,000
9/8/10		cis-1,2-dichloroethene	50	70
		trichloroethene	**13**	1
		tetrachloroethene	**5.1**	1
SB-4	30 - 40	Acetone	41	6,000
9/8/10		cis-1,2-dichloroethene	19	70
		trichloroethene	**14**	1
		tetrachloroethene	**5.9**	1
SB-5 **	39.5 – 49.5	1,1-dichloroethane	0.75 J	50
10/19/10		1,1-dichloroethene	0.45 J	1
		cis-1,2-dichloroethene	15.8	70
		trichloroethene	**27.9**	1
		tetrachloroethene	**19.9**	1

(Map 10) ** - Analysis by Accutest Laboratories through Philips

* **Hexanal**, or **hexanaldehyde**, is an alkyl aldehyde used in the flavor industry to produce fruity flavors. Its scent resembles freshly cut grass.

Nonanal, also called nonanaldehyde or pelargonaldehyde, is an alkyl aldehyde. It has a strong fruity or floral odor and is used in flavors and perfume.

GWQS – Ground Water Quality Standards

Bolded Concentrations – Compound exceeds NJDEP GWQS

Borings were advanced on the eastern portion of the Genlyte-Stonco site to investigate AOCs identified during SA's historical research. The information available to SA was relevant to the operations of the Stonco facility and limited to an ISRA application and waste manifests obtained from the NJDEP, Division of Hazardous Waste Management. Stonco operated on the site from 1979 to the present (2010) for a total of approximately 30 years. Prior to the operations of Stonco, A.P.W. Products, a paper supply company and the Hazel Bishop Company operated on the site for 25 years. SA could find no information concerning the nature of operations or the materials used at Hazel Bishop. Hazel Bishop was a cosmetics firm but not even generalities could not be made concerning its operations. An old railroad siding is located on the northeastern corner of the site that allowed the delivery of needed materials in bulk. Stonco did not use the siding so it was used by either or both Hazel Bishop and A.P.W. Products. SA advanced boring SB-2 in the area of the railroad siding and collected a ground water sample. The original intent of the sample was to provide background data related to the AOCs on the eastern side of Stonco. Upon analysis of the sample it was discovered that both hexanal and nonanal were detected in the sample. Both compounds are alkyl aldehydes and both have scent characteristics that would make them desirable as perfume constituents. The presence of these compounds is indicative of the operations of Hazel Bishop. Also detected in ground water sample SB-2 were TCE at a concentration of 9.7 ppb and PCE at a concentration of 8.7 ppb, both exceeding the NJDEP GWQS of 1 ppb. Cis 1,2-dichloroethene (1,2-DCE), a breakdown product of TCE, was detected at a concentration of 12 ppb, below the GWQS of 70 ppb. The presence of 1,2-DCE is indicative of an older release.

Soil boring SB-3 was advanced in the AOC where a 1999 Stonco Map (Map 7) indicated a hazardous waste storage area had been located. The compounds detected in ground water sample SB-3 included TCE at a concentration of 13 ppb, PCE at a concentration of 5.1 ppb and 1,2-DCE at a concentration of 50 ppb. Both TCE and PCE exceeded the GWQS of 1 ppb for each compound but the GWQS for 1,2-DCE was not exceeded. The pathway for the contaminants to enter the ground water is not known, but based upon the proximity to the hazardous waste storage area, it is not unreasonable to speculate that a release of contamination could have occurred during storage or disposal of the hazardous waste. Map 7 indicated that there were no floor drains in the hazardous waste storage area.

Soil boring SB-4 was positioned hydraulically downgradient of an area on Map 7 labeled chemical storage room. In addition, the map shows two floor drains located within the main building that are connected to each other and discharge from the building to the main sanitary sewer. It was hoped that if there was a significant discharge of hazardous material from the floor drains and eventually the sewer piping, it would be picked up in ground water sample SB-4. The analysis of sample SB-4 indicated that TCE was detected at a concentration of 14 ppb, PCE at a concentration of 5.9 ppb and 1,2-DCE at a concentration of 19 ppb. Both TCE and PCE exceeded the GWQS of 1 ppb for each compound, but the GWQS for 1,2-DCE was not exceeded. The fact that the compounds detected and their concentrations in SB-4 were similar to those detected in SB-3 seems to indicate a broad area of impact in the shallow ground water.

Boring SB-5 was advanced at the AOC where the former heating oil USTs were located and where a waste water discharge line connecting two floor drains located in the painting area and the paint storage area within the building, connects to the municipal sewer pipe. (Map 7) UST soil sampling conducted by BBL in 1999 to support the 1985 closure of the UST system detected a low concentration of PCE in one of the soil samples. SA followed up with a soil sampling event and also detected a low concentration (0.040 ppm) of PCE in a soil sample. SA supervised the

advancement of a boring by consultants for Philips for both the soil and the ground water sample. Philips provided their own consultant and Geoprobe subcontractor for the boring at this location and location SB-7. The results of the analysis of a ground water sample indicated the detection of TCE at a concentration of 27.9 ppb, PCE at a concentration of 19.9 ppb and 1,2-DCE at a concentration of 15.8 ppb ppb. Both TCE and PCE exceeded the GWQS of 1 ppb for each compound but the GWQS for 1,2-DCE was not exceeded. 1,1-dichloroethene and 1,1-dichloroethane were also detected at concentrations less than 1 ppb.

The confirmation that chlorinated solvents were used at Stonco and the detection of chlorinated solvents in the ground water at the eastern portion of the Stonco facility suggests that Stonco or their predecessors released contamination into the ground water. While detected concentrations of PCE and TCE do not indicate a major source area of the release, the time that has lapsed between the contaminant releases and the contemporary subsurface investigation performed by SA is long enough to allow both biodegradation of the original compounds and migration into the bedrock aquifer.

Based upon the results of ground water sampling in the eastern portions of the Stonco facility, a documented release of PCE and TCE to ground water attributable to the site has been confirmed. Level 1 contamination attributable to Genlyte - Stonco was detected in the unconsolidated aquifer.

D. POTABLE WELL INFORMATION

Distance to nearest potable well: > 1 mile. Information obtained by SA indicates that the closest potable well is more than a mile from the site. This information is based upon a Site Investigation report prepared for the Durex Inc. site located approximately 1,200 feet southwest of the PREMESCO site.

Depth of nearest potable well: 130 feet

Identify all public supply wells within 4 miles of the site and tabulate for each aquifer the population utilizing that aquifer for drinking purposes. Include only those populations which utilize wells that have a potential to be impacted, not wells which are actually impacted. Do not list private potable wells individually in this table, but include populations served by these private wells.

The **South Orange Water Department** operates one well which is located between two and three miles from the site. The well draws from the Brunswick Formation and serves 16,924 residents.

The **Orange City Water Company** operates five wells within four miles of the site, all drawing from glacial sands and gravel of the Quaternary Stratified Drift. According to NJDEP research, the Orange City Water Company operates a total of seven wells and serves 33,000 residents. Approximately 4,714 people are served per well and the five wells within four miles of the site serve 23,570 people.

The **New Jersey American – Raritan Water System** serves a total population of approximately 609,325. Approximately 92% of its delivered water is obtained from surface

water while the remaining 8% is supplied from approximately 80 wells drawing from the glacial sands and gravel of the Quaternary Stratified Drift and the Brunswick Formation. The approximate number of people served per well is 609. This water system operates 23 wells located within four miles of the site and they serve a total of 14,007 people. Seven wells draw from the stratified drift and 16 wells draw from the Brunswick Formation.

The **New Jersey American – Short Hills Water System** serves a total population of approximately 217,230. Approximately 92% of its delivered water is obtained from surface water while the remaining 8% is supplied from approximately 23 wells drawing from the Brunswick Formation. The approximate number of people served per well is 756. This water system operates two wells located within two miles of the site serving a total of 1,512 people. The two wells are 100 feet deep and draw water from glacial sands and gravel of the Quaternary Stratified Drift.

Totals

Distance from Site (Miles)	Number of wells	Population Totals	Aquifer
1.0 mile – 2.0 mile	20	**12,474**	*
2.0 mile – 3.0 mile	7	**36,998**	*
3.0 mile – 4.0 mile	4	**6,541**	*
		Total	**56,013**

* Wells in Quaternary Stratified Drift - 14
Wells in the Brunswick Formation - 17

State whether ground water is blended with surface water, ground water or both prior to distribution:

Ground water is blended with surface water at the New Jersey American Raritan Water System and the New Jersey American Short Hills Water System.

Discuss private potable well use within 4 miles of the site. Include depth, formation and distance, if available.

There are no potable domestic wells in use in the Boroughs of Kenilworth, Roselle, Hillside and the Township of Maplewood. The Township of Cranford has one domestic well of unknown depth in use and the Township of Springfield maintains records for two wells, also of unknown depth. Union Township has 11 domestic wells ranging in depth between 100 and 400 feet. The closest known potable well is more than 1 mile from the site.

Discuss the site's source of potable water.

The site receives water from the New Jersey American – Raritan Water System.

Discuss information concerning the population utilizing wells that are known to be contaminated with hazardous substances which are attributable to the site. Also include any other evidence of contaminated drinking water or wells closed due to contamination. State whether Level 1 or Level 2 contamination is present.

There are no known potable wells contaminated with hazardous substances that are attributable to the site.

The subsurface investigation at Genlyte Stonco was conducted to determine if the ground water under the site was impacted by chlorinated solvents. Potential contaminant sources were investigated due to the detection of high concentrations of TCE in the indoor air of the Hickory Manor Condominiums.

In 2010, it was discovered that the indoor air concentration of TCE in the condos exceeded the Rapid Action Levels of the NJDEP Guidance Document. Sub slab vapor recovery units have been installed on the condo units.

Identify any resource uses of ground water within 4 miles of the site (i.e., commercial livestock watering, ingredient in commercial food preparation, supply for commercial aquaculture, supply for major or designated water recreation area, excluding drinking water use, irrigation of commercial food or commercial forage crops, unusable).

There are numerous industrial and irrigation wells in the vicinity of the site. The irrigation wells are operated by several different golf courses. Tuscan Dairy Farms, Inc operates three wells between 2 and 3 miles from the site. There are no commercial wells within 1 mile of the site. (Map 12)

Name	Distance (miles)	Depth (feet)	Formation
Baltusrol Golf Club	3.0	203	Brunswick
Baltusrol Golf Club	3.0	288	Brunswick
Baltusrol Golf Club	3.9	515	Brunswick
Tuscan Dairy Farms Inc.	2.3	300	Brunswick
Tuscan Dairy Farms Inc.	2.3	620	Brunswick
Tuscan Dairy Farms Inc.	1.4	200	Brunswick
Suburban Golf Club	1.7	250	Brunswick
Suburban Golf Club	1.7	500	Brunswick

PART VI: SURFACE WATER ROUTE

A. SURFACE WATER

Does a migration pathway to surface water exist? No. Tributary is 0.2 miles northwest of the site.
Flood plain: Site is not in a flood plain (Map 13)
Size of drainage area for sources at the site in acres:
2-year, 24-hour rainfall in inches: 3.4
Does contaminated ground water discharge to surface water? Unknown

Identify known or potentially contaminated surface water bodies. Follow the pathway of the surface water and indicate all adjoining bodies of water along a route of 15 stream miles.

Surface Water Body	Distance from Site (miles)	Flow (cfs)	Usage(s)
Unknown Tributary to Rahway River	0.21	<10	Primary and secondary contact recreation, fishing
Unknown Tributary to Rahway River	1.06	10	recreational fishing
Rahway River	1.29	10 - peak flow of 40	Most areas unsuitable for primary and secondary contact recreation, no swimming, fishing
Surface Water Intake on Rahway River Lake	12.74		Stocked w/ trout

Identify drinking water intakes and fisheries within 15 miles downstream (or upstream in tidal areas) of the site. For each intake or fishery identify the distance from the point of surface water entry, the name of the fishery and/or supplier and population served.

There is a surface water intake approximately 12.74 miles downstream south of the site on or near the Rahway River Lake. It is a public community well operated by the Rahway Water Department and serves 26,000 people with a 5.5 million gallons/day withdrawal rate. Most of the Rahway River is designated as fresh water non-trout but there have been recent efforts to stock the river with trout.

Discuss surface water and/or sediment sampling conducted in relation to the site. Include surface water body, sampling date, sampling agency or company. State whether Level 1 or Level 2 contamination is present for surface water. State whether Level 2 contamination of sediments is present. For each sampling event, list the name, address and certification number of the lab which performed the analyses. State who conducted the quality assurance review of the data and summarize any data qualifications. Discuss visual observations if analytical data are not available (include date of observation).

No sampling was conducted.

Determine if a contaminant on site displays bioaccumulative properties. Identify all bioaccumulative substances that may impact the food chain.

No such contaminants were detected.

Determine if surface water is used for irrigation of commercial food or commercial forage crops, watering of commercial livestock, commercial food preparation or recreation.

No surface water near the Stonco site is used for the irrigation of commercial food or forage crops, watering of commercial livestock or commercial food preparation.

B. SENSITIVE ENVIRONMENTS

Identify all sensitive environments, including wetlands, along the 15 stream-mile pathway from the site:

Since most of the release of contaminants occurred in the subsurface, a surface water pathway was not evaluated. Any releases to the ground surface at the Stonco site were likely to be immediately absorbed into the soil. Map 14 identifies wetlands located within 4 miles of the site.

C. LIKELIHOOD OF RELEASE

Discuss the likelihood of a release of contaminant(s) to surface water, include any additional information concerning the surface water route. Identify contaminants detected and provide a rationale for attributing them to the site. Identify any intakes, fisheries and sensitive environments, listed above, that are or may be actually contaminated by hazardous substances attributed to an observed release from the site.

Since most of the contaminant release was to the subsurface, it is unlikely that the surface water pathway of the site was impacted. Although a surface release was not detected, it is possible that contaminants were spilled to the surface and readily absorbed into the soil.

PART VII: AIR ROUTE

A. POPULATION AND SENSITIVE ENVIRONMENTS

Identify populations residing within 4 miles of the site. (Map 15)

Distance (miles)	Population
on site	30 workers
> 0 - 1/4	646
> 1/4 - 1/2	4,771
> 1/2 - 1	19,923
> 1 - 2	60,639
> 2 - 3	111,253
> 3 - 4	190,901

Identify sensitive environments and wetland acreage within 4 miles of the site.

Distance (miles)	Type of environment
0 - 1/4	Forested wetlands and fresh water marshes
> 1/4 - 1/2	Forested wetlands and fresh water marshes
> 1/2 - 1	Forested wetlands and fresh water marshes
> 1 - 2	Forested wetlands and fresh water marshes
> 2 - 3	Forested wetlands and fresh water marshes
> 3 - 4	Forested wetlands and fresh water marshes

Map 14

B. LIKELIHOOD OF RELEASE

Describe the likelihood of release of hazardous substances to air. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For an observed release, discuss the supporting analytical evidence and its significance relative to background.

Based upon current NJDEP guidance regarding indoor air, it is possible that the site building itself may be impacted by vapor intrusion from the significant concentrations of chlorinated solvents detected in the shallow aquifer beneath the site.

If a release to air is observed or suspected, determine the number of people that reside within the area of air contamination.

A release to air was neither observed nor suspected.

If a release to air is observed, identify any sensitive environments that are located within the area of air contamination.

A release to air was neither observed nor suspected.

PART VIII: REMOVAL ACTION AND/OR IEC CONDITION

Discuss conditions which constitute an Immediate Environmental Concern (IEC) or warrant EPA Removal Action consideration (improper storage of incompatible/reactive materials, leaking or unsound containers, inadequate site security, subsurface gas threat).

There were no IEC conditions found during the Site Investigation.

PART IX: CONCLUSIONS AND RECOMMENDATIONS

In August 2011, the NJDEP and Philips completed the initial sampling and surveying of eight monitoring wells that had been installed in July 2011 and the sampling of three shallow monitoring wells that had been installed in 2007. The ground water sampling confirmed that TCE concentrations as high as 300 ppb were detected on the western portion of the Stonco site. These compounds were not related to operations conducted on the western portion of the Stonco site and additional investigation will likely confirm that the source of the contaminants is Premrefco.

Monitoring wells MW-2 and MW-3, were installed on the eastern portion of the Stonco site to assess two AOCs. The results of ground water sampling confirmed that a minor release of PCE and TCE related to site operations by Stonco or former tenants occurred. PCE, at a concentration of 25 ppb, was detected in MW-2. This was the highest solvent concentration detected in either of the two monitoring wells. The remaining concentrations of TCE and PCE detected in the two monitoring wells were all less than 5 ppb. These concentrations do not represent the presence of a significant source area that could be responsible for the contamination detected at the Hickory Manor Condominiums.

The ground water flow direction map generated from the August 3, 2011 sampling event indicates that the ground water flow is toward the south with a minor south-southwest component. Monitoring wells MW-4 and MW-7 were installed in positions located between the Stonco AOCs and the Hickory Manor Condos. The concentrations of chlorinated solvents detected in each of these wells were less than 5 ppb with the exception of a TCE detection of 50 ppb in MW-4. The source of the TCE in MW-4 was likely to be the eastern edge of the TCE plume emanating from

source of the TCE in MW-4 was likely to be the eastern edge of the TCE plume emanating from Premrefco. Monitoring wells located between the AOCs on the eastern portion of Stonco and the Hickory Manor Condominium lack significant concentrations of chlorinated solvents. Since there is no indication that contaminants attributable to the operations at Stonco migrated to the condos, Stonco is not a contaminant source of the Hickory Manor Condominiums.

A row of homes are located within 200 feet of the eastern side of the Stonco facility where the AOCs are located. Because the homes are located hydraulically cross gradient to downgradient of the Stonco AOCs, the indoor air of the homes have the potential to be impacted by vapor intrusion of the contaminants detected in the ground water. (VI) (Map 16)

Indoor air samples should be collected inside the Stonco facility to ensure that indoor air contaminant concentrations are within NJDEP guidelines. Specifically, the Stonco offices, located in the southernmost portion of the building, are located 230 feet hydraulically downgradient of boring TW-10 where TCE was detected in the ground water at a concentration of 250 ppb. In addition, the offices are located 75 feet and hydraulically cross-gradient of boring SB-7 where TCE was detected in the ground water at a concentration of 260 ppb. The detection of TCE at a concentration of 250 ppb in a ground water sample located upgradient of the Stonco offices is a cause for concern of indoor air quality, especially since the Hickory Manor Condominiums, located 480 feet hydraulically downgradient of boring TW-11, were adversely impacted by contaminated indoor air.

Philips Electronics of North America, as owners of Genlyte-Stonco should comply with N.J.A.C. 7:26E 4.4, Remedial Investigation of Ground Water. A soil gas survey should be conducted in the offices of the Stonco facility and in the homes located east of the Stonco AOCs.

The HRS score for this site is greater than 28.5; therefore, the site is assigned a higher priority for further action under CERCLA.

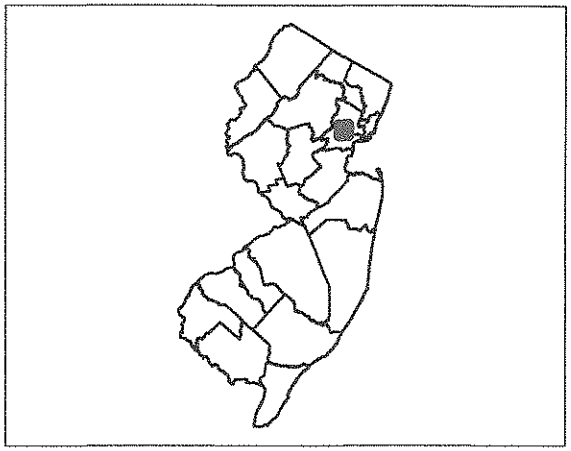
Submitted by: Steven Hoke, P.G.
Title: Senior Environmental Specialist
NJDEP, Bureau of Environmental Measurements and Site Assessment
Date: 09/07/11

PART X: POTENTIALLY RESPONSIBLE PARTIES

NAME	OWNER/OPERATOR/ KNOWN DISCHARGER	CURRENT ADDRESS
Dianne Adamowitz-Murphy, P.E., CHMM Environmental Project Coordinator	Owner Representative	Philips Lighting Company 200 Franklin Square Drive Somerset, New Jersey 08873

MAPS

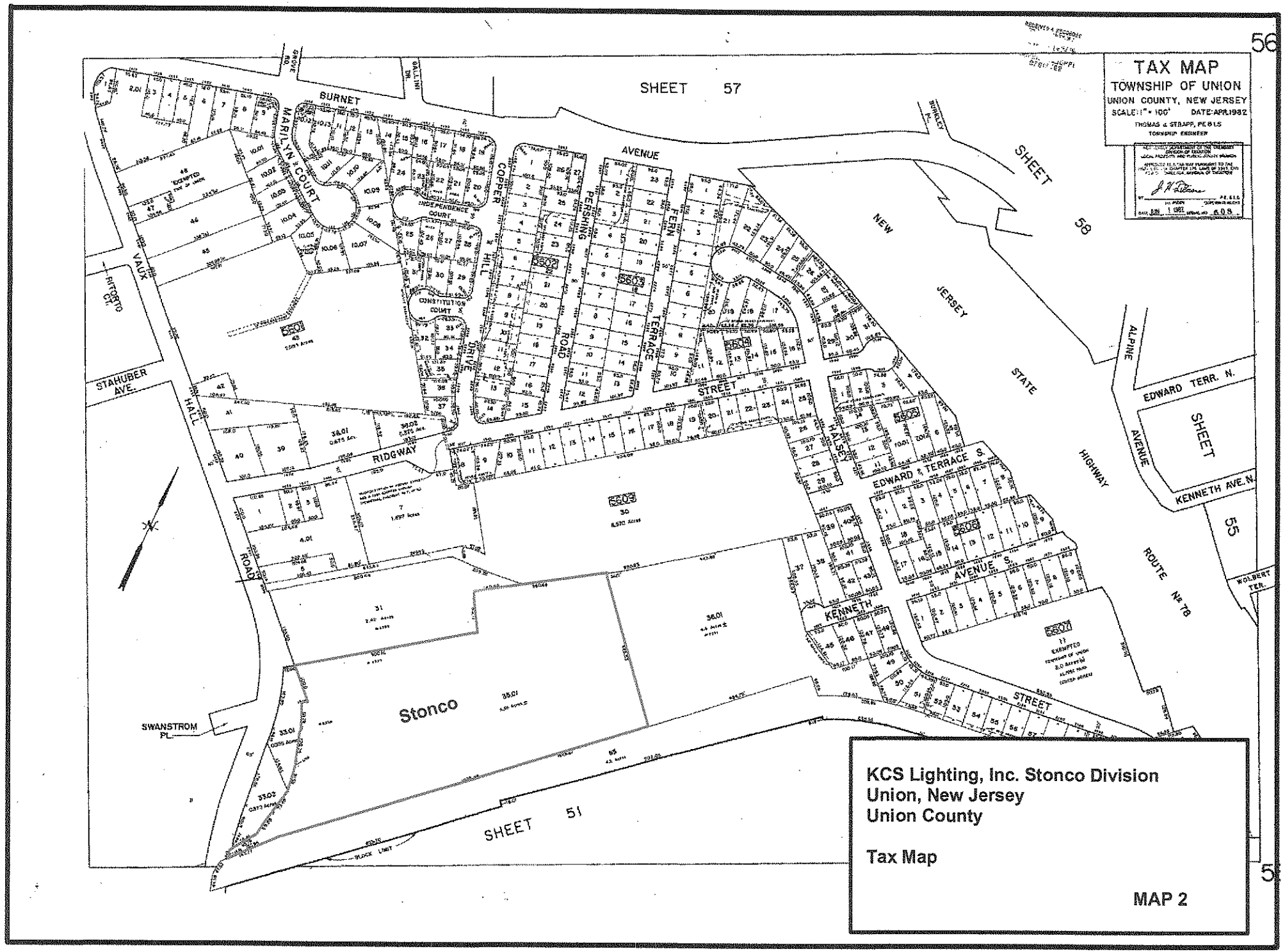
New Jersey



KCS Lighting, Inc.
Stonco Division
2345 Vauxhall Road
Union, New Jersey

USGS Topographic Map
Roselle, NJ
1981

Map 1



KCS Lighting, Inc. Stonco Division
Union, New Jersey
Union County

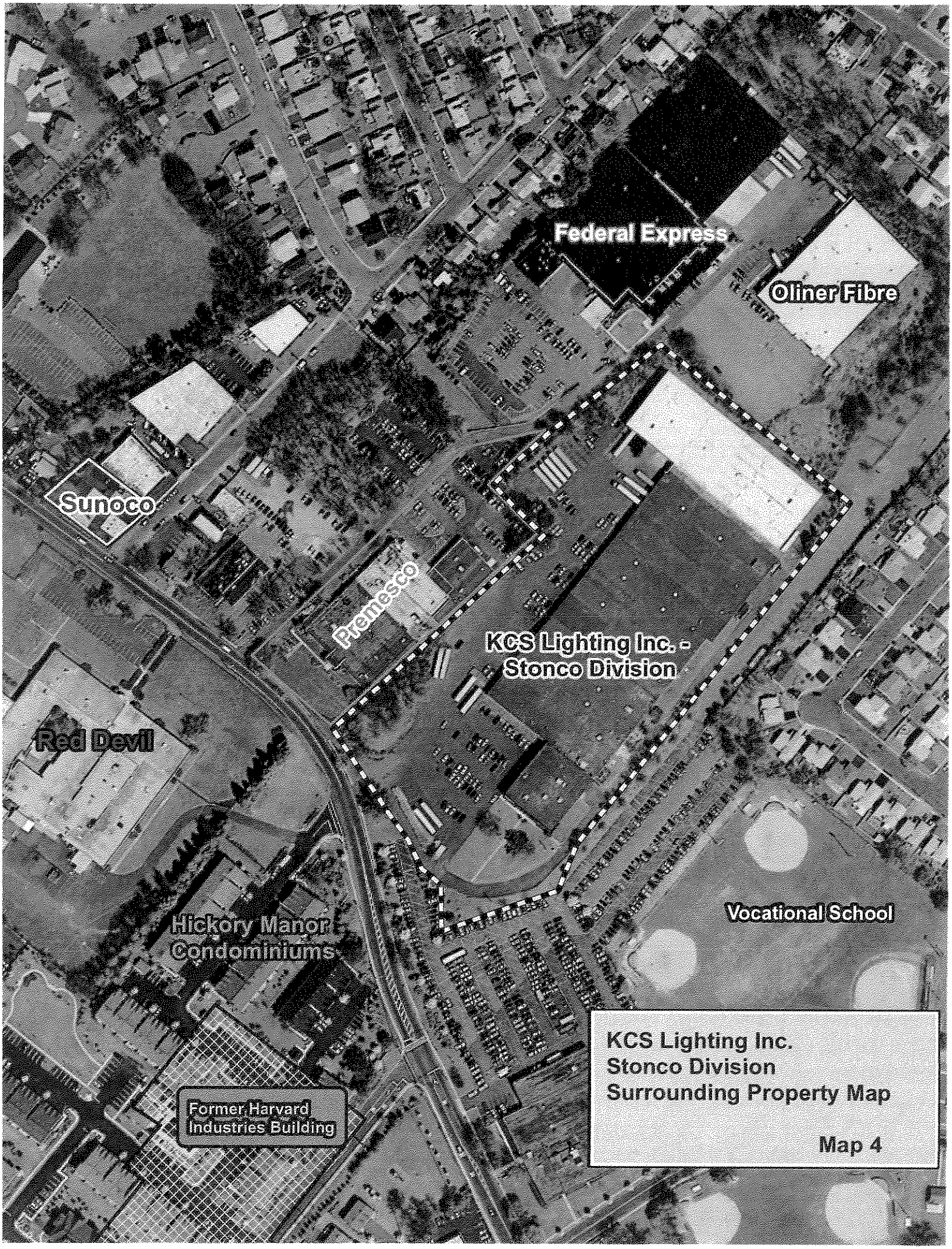
Tax Map

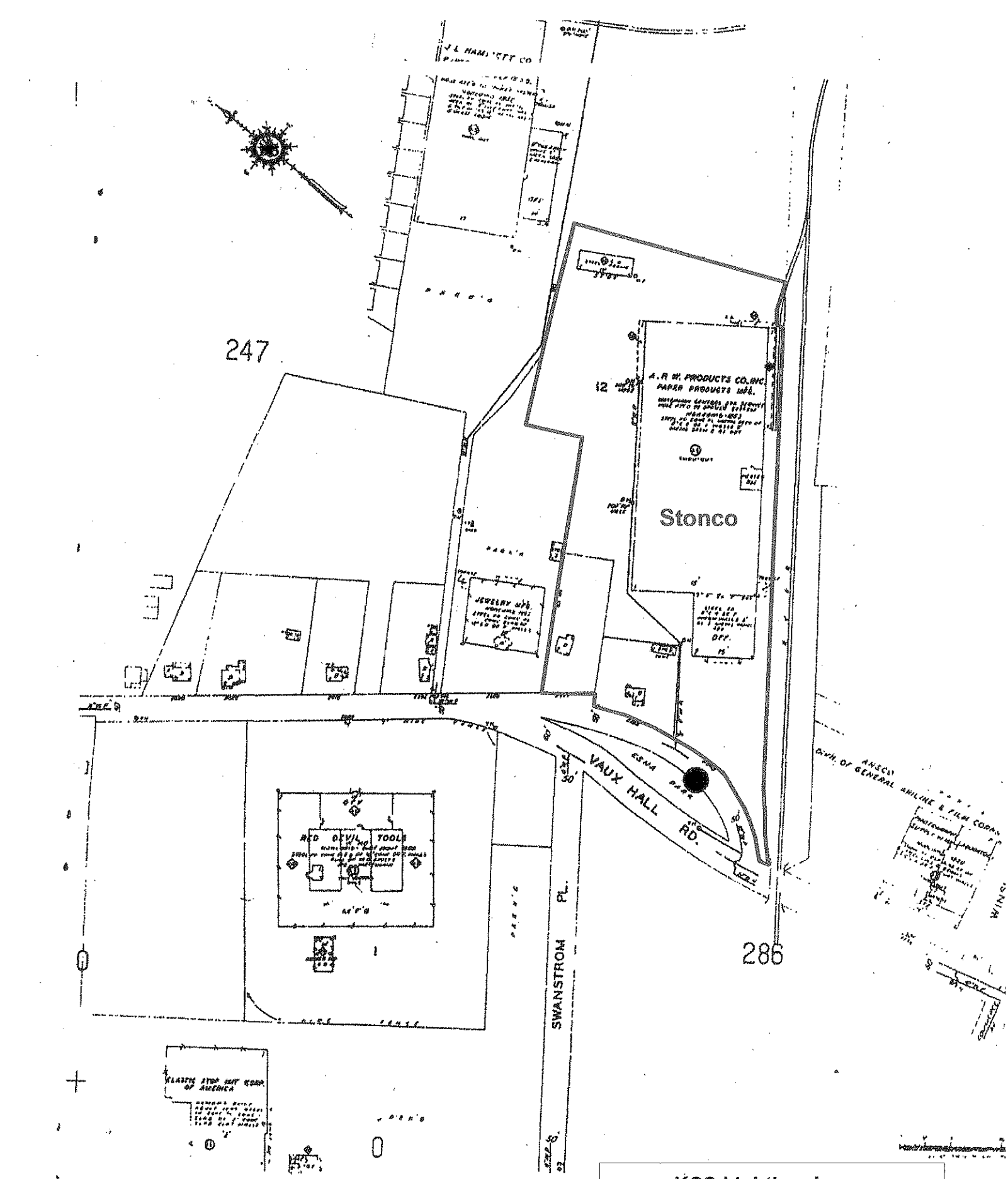
MAP 2

Google maps

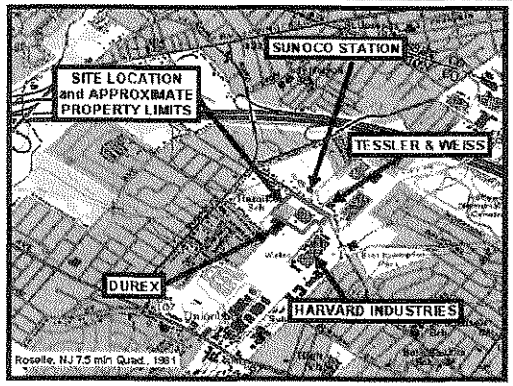
Address **2345 Vauxhall Rd**
Union, NJ 07083

Notes KCS Lighting
Stonco Div.


Federal Express
Oliner Fibre
Sunoco
Premesco
KCS Lighting Inc. -
Stonco Division
Red Devil
Hickory Manor
Condominiums
Vocational School
Former Harvard
Industries Building
KCS Lighting Inc.
Stonco Division
Surrounding Property Map
Map 4



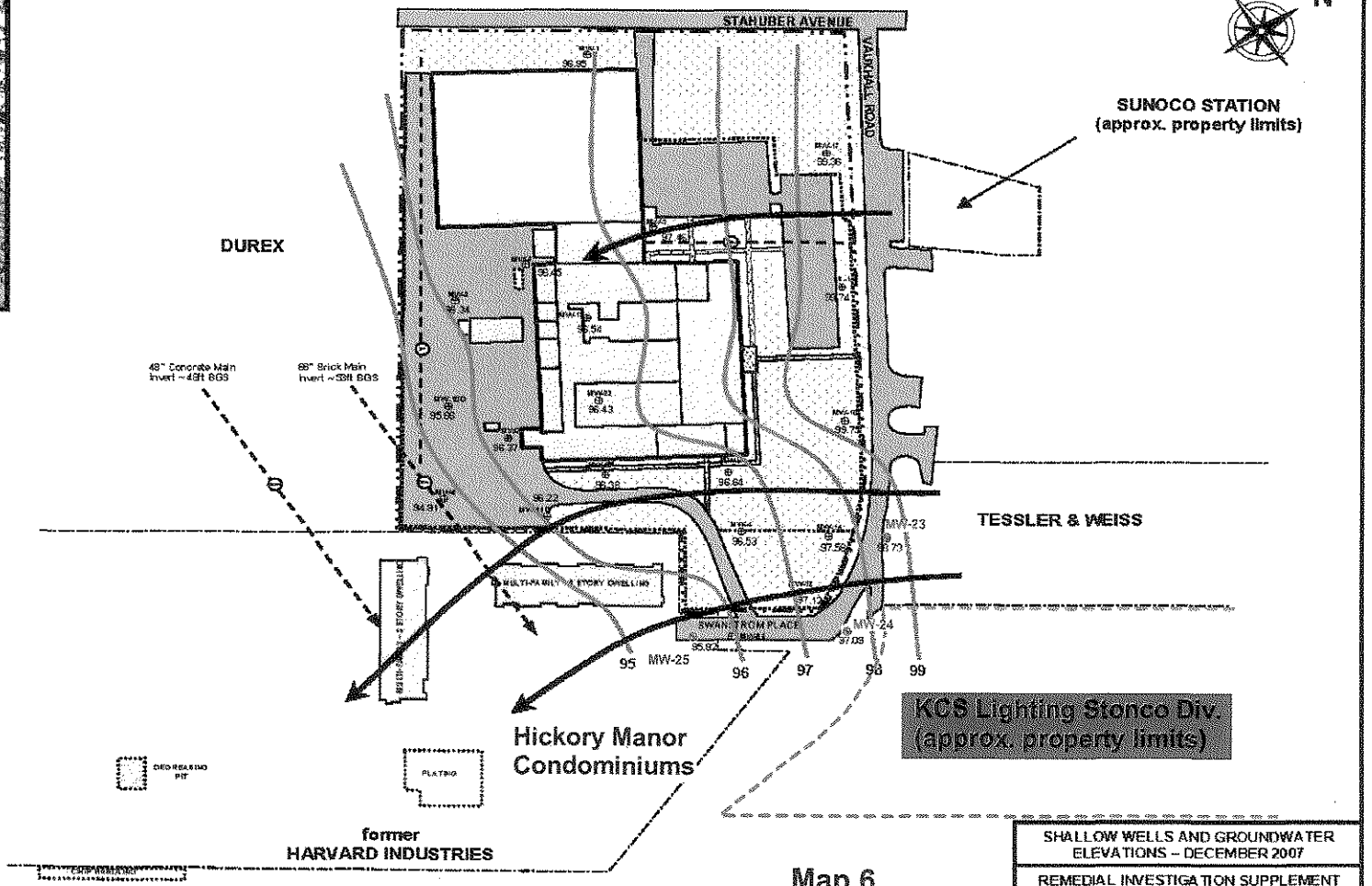
KCS Lighting, Inc.
Stonco Division
Union Twp, Union County
Sanborn Map
Map 5



DECEMBER 2007 SHALLOW GROUNDWATER ELEVATIONS	
S-1	99.74 amsl
MW-1	99.95 amsl
MW-2	97.46 amsl
MW-3	99.84 amsl
MW-4	99.53 amsl
MW-5	99.56 amsl
MW-6	94.91 amsl
MW-7	99.27 amsl
MW-8	99.34 amsl
MW-9	99.45 amsl
MW-10S	95.00 amsl
MW-10D	95.22 amsl
MW-11	99.84 amsl
MW-12	99.78 amsl
MW-13	97.56 amsl
MW-14	99.36 amsl
MW-17	97.12 amsl
MW-18	95.43 amsl
MW-22	99.73 amsl
MW-23	97.00 amsl
MW-24	95.92 amsl

NOTES:
Contours drawn with computer assistance using Kriging interpolative method with defaults settings

- MONITORING WELL LOCATION AND DESIGNATION
- CONTOURS (elevation contours in feet AMSL)
- GROUNDWATER FLOW DIRECTION
- SANITARY SEWER
- STORM SEWER
- FENCE LINE
- EXISTING BUILDING
- ASPHALT PAVED
- CONCRETE PAVED
- LAWN/LANDSCAPE AREA
- FORMER BUILDING
- RED DEVIL PROPERTY BOUNDARY
- OFFSITE PROPERTY BOUNDARIES



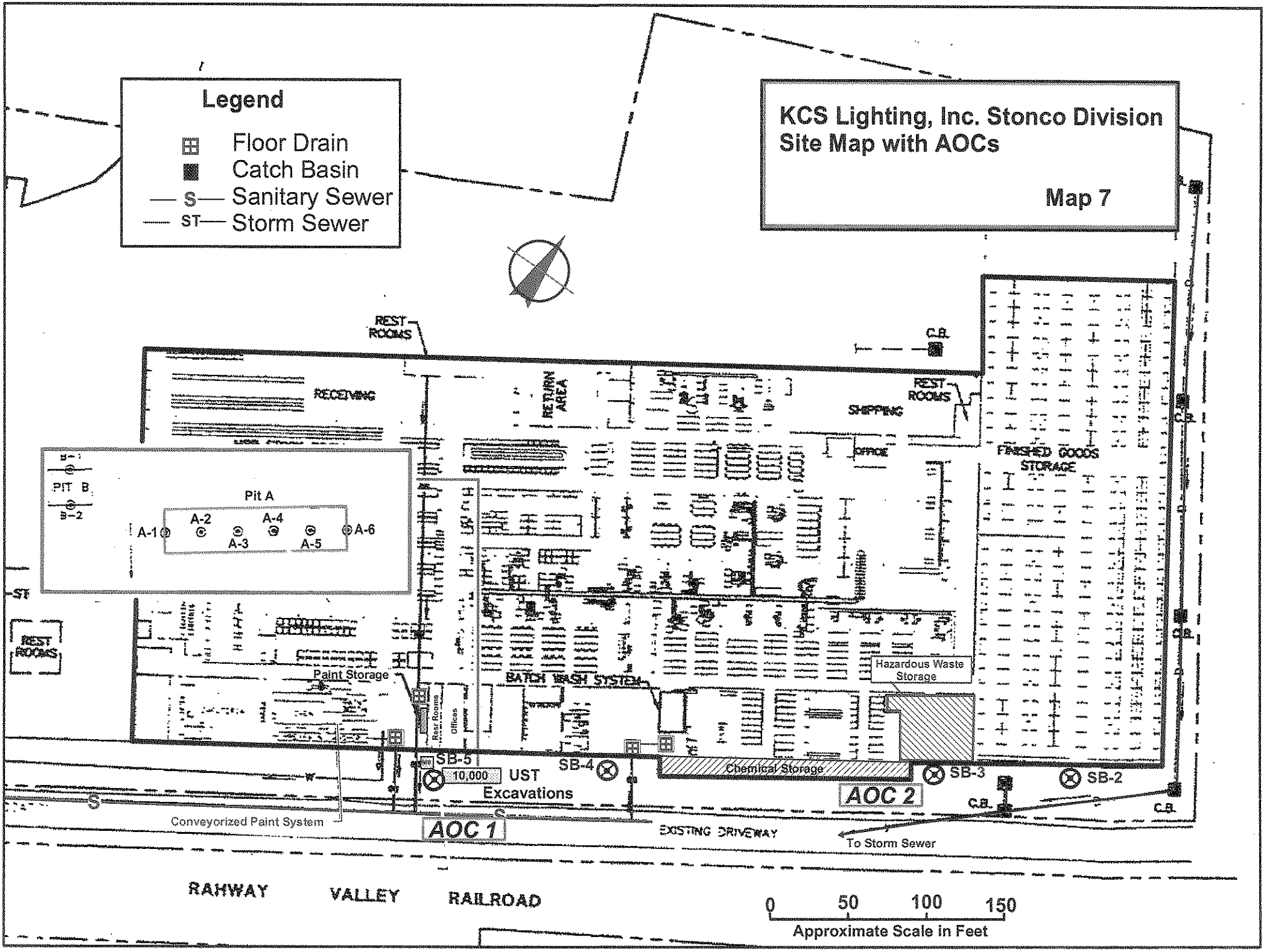
SHALLOW WELLS AND GROUNDWATER ELEVATIONS – DECEMBER 2007

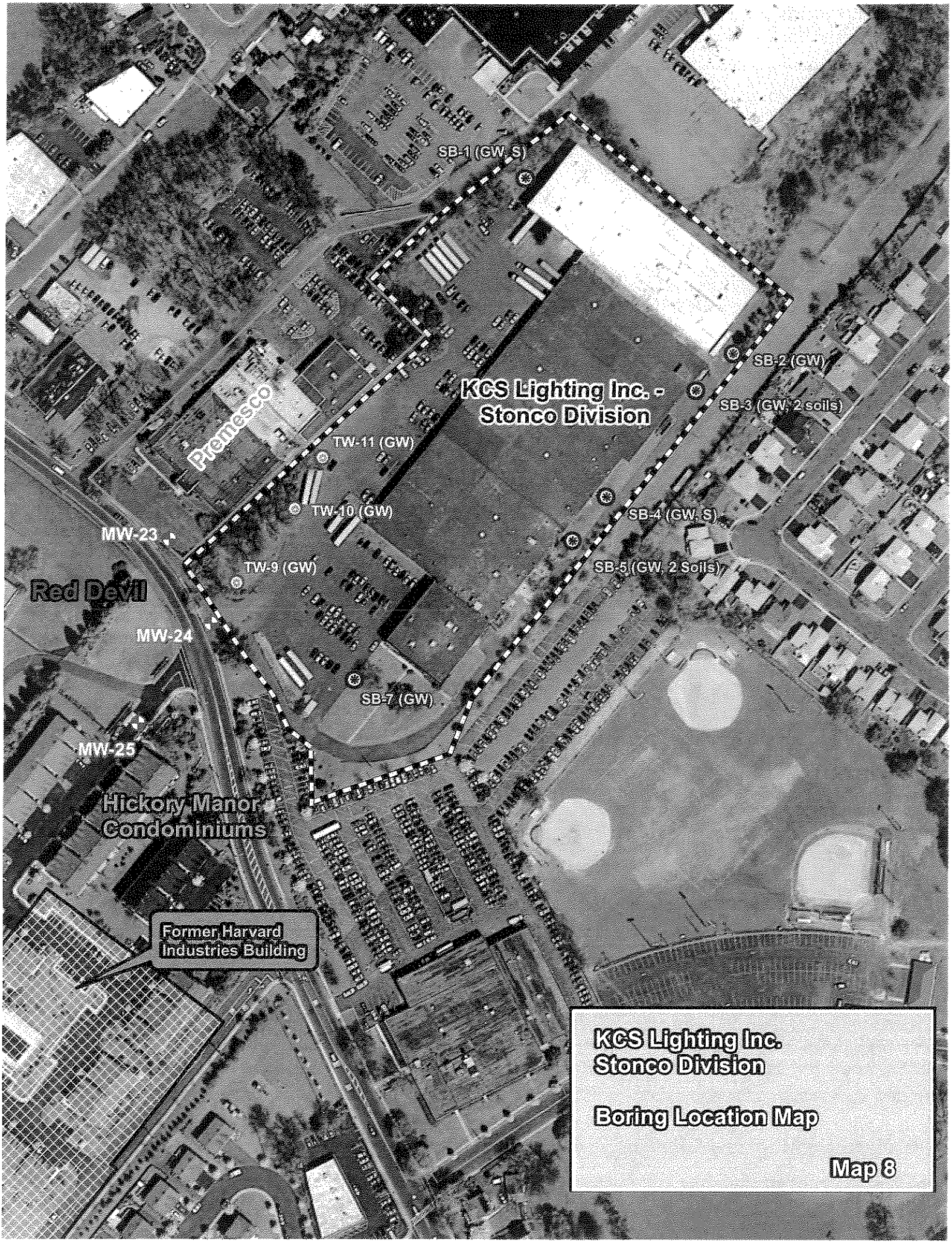
REMEDIAL INVESTIGATION SUPPLEMENT

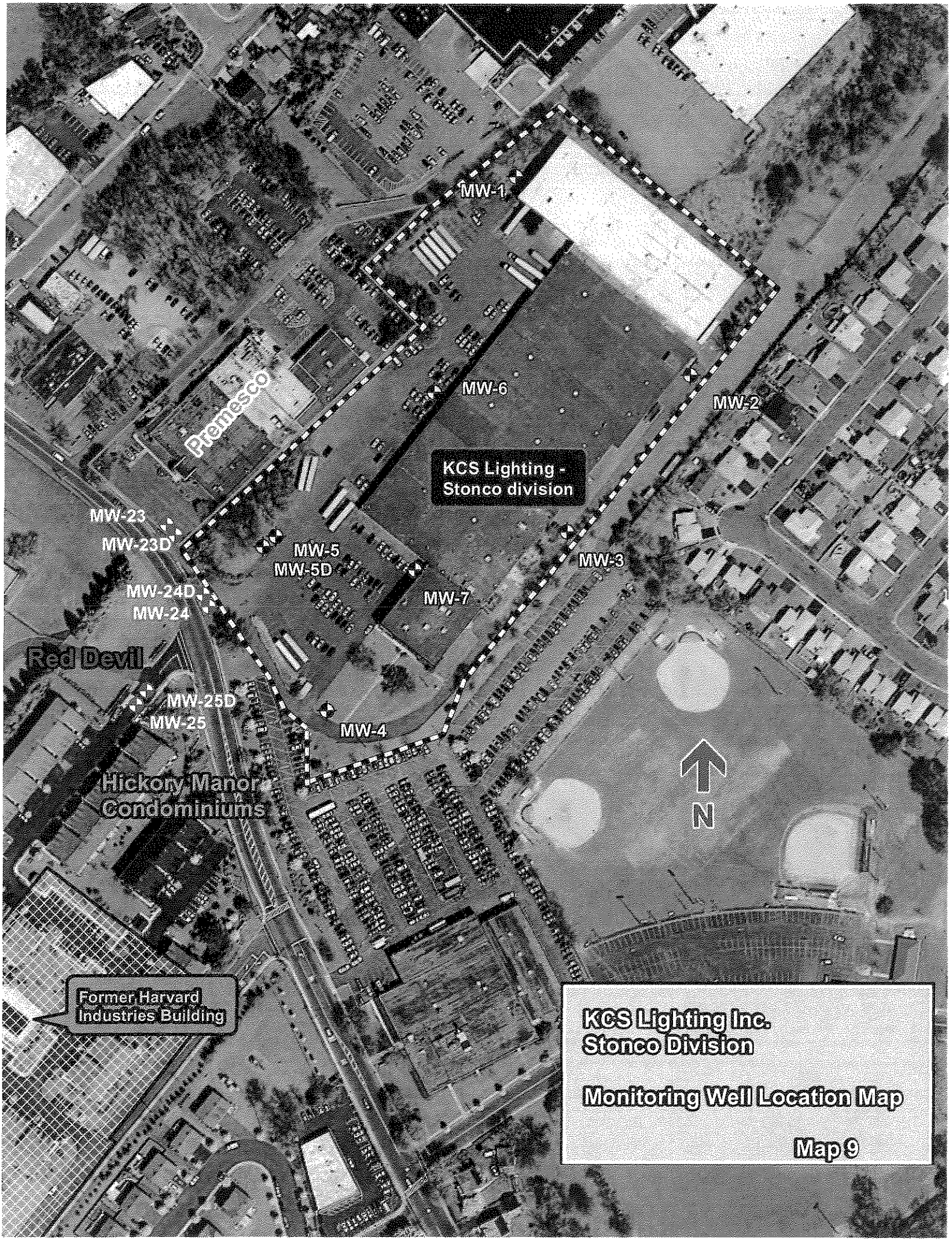
RED DEVIL, INC.
2400 VAUXHALL ROAD
UNION, NEW JERSEY
ISRA CASE Nos. E20010111 & E20040061

EcolSciences, Inc.

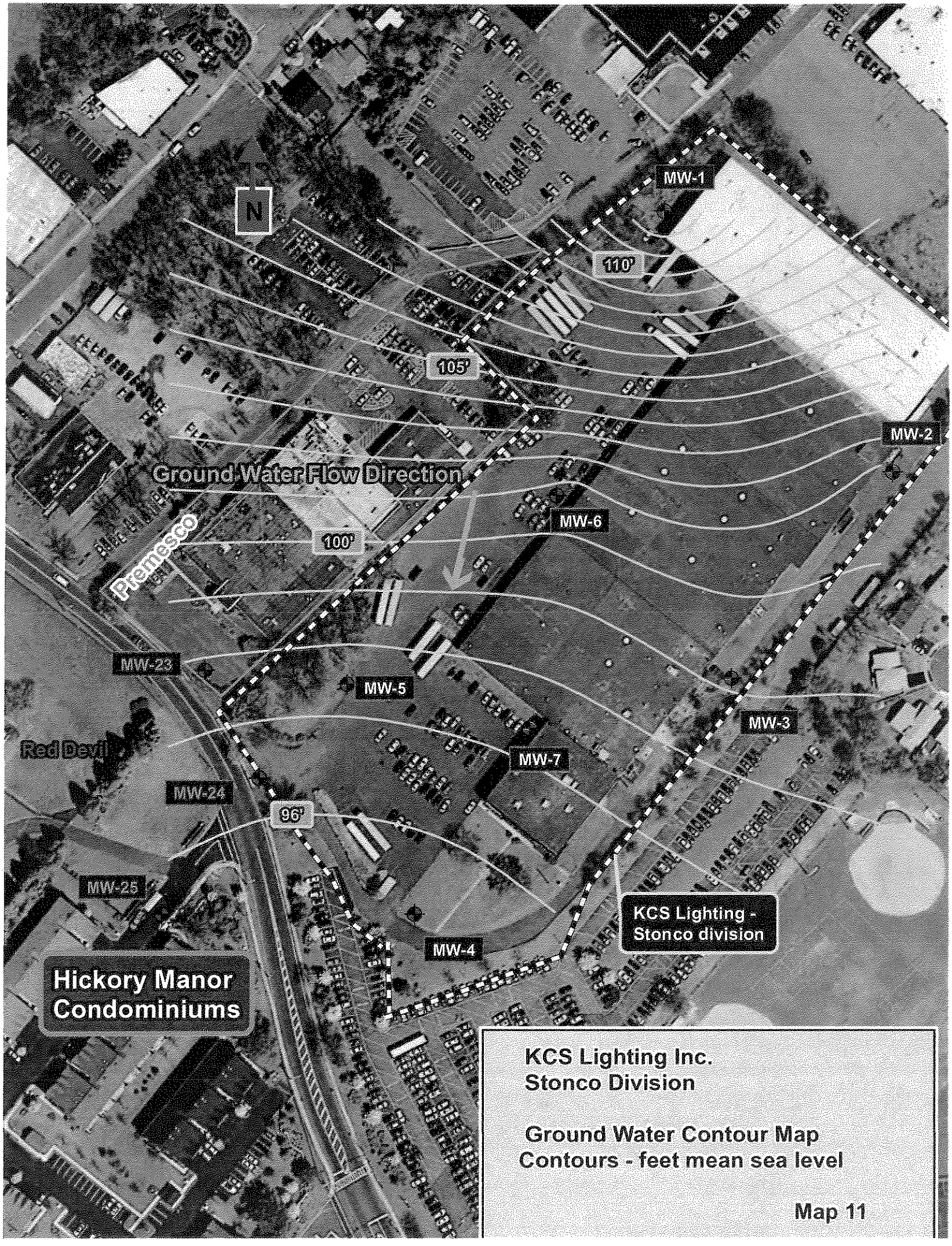
DATE: July 2008
SCALE: as noted


Legend
Floor Drain
Catch Basin
S Sanitary Sewer
ST Storm Sewer
KCS Lighting, Inc. Stonco Division
Site Map with AOCs
Map 7
REST ROOMS
RECEIVING
RETURN AREA
SHIPPING
OFFICE
FINISHED GOODS STORAGE
C.B.
PIT B
B-2
Pit A
A-1
A-2
A-3
A-4
A-5
A-6
Paint Storage
BATCH WASH SYSTEM
Hazardous Waste Storage
Resr Rooms
Offices
SB-5
SB-4
SB-3
SB-2
10,000 UST
Excavations
Chemical Storage
AOC 2
AOC 1
Conveyorized Paint System
EXISTING DRIVEWAY
To Storm Sewer
RAHWAY VALLEY RAILROAD
0 50 100 150
Approximate Scale in Feet


SB-1 (GW, S)
SB-2 (GW)
SB-3 (GW, 2 soils)
KCS Lighting Inc. -
Stonco Division
Premesco
TW-11 (GW)
TW-10 (GW)
SB-4 (GW, S)
MW-23
TW-9 (GW)
SB-5 (GW, 2 Soils)
Red Devil
MW-24
SB-7 (GW)
MW-25
Hickory Manor
Condominiums
Former Harvard
Industries Building
KCS Lighting Inc.
Stonco Division
Boring Location Map
Map 8


MW-1
MW-6
MW-2
Premesco
KCS Lighting -
Stonco division
MW-23
MW-23D
MW-5
MW-5D
MW-3
MW-24D
MW-24
MW-7
Red Devil
MW-25D
MW-25
MW-4
Hickory Manor
Condominiums
N
Former Harvard
Industries Building
KCS Lighting Inc.
Stonco Division
Monitoring Well Location Map
Map 9


N
MW-1
T - non detect / P 0.3
MW-6
T 3.6 / P 0.3
MW-2
T 2.4 / P 20
Premesco
KCS Lighting -
Stonco division
MW-23
T 400 / P 2
TCA 0
MW-5
T 270 / P 4
TCA 27
MW-3
T 4.2 / P 2.9
MW-7
T 2.1 / P - non detect
MW-24
T 270 / P 2.6
TCA 21
Red Devil
MW-25
T 175 / P 1.5
TCA 14
MW-4
T 40 / P 0.9
Hickory Manor
Condominiums
T = TCE Concentrations
P = PCE in parts per bilion
Former Harvard
Industries Building
KCS Lighting Inc.
Stonco Division
Contaminant Concentration Map
Map 10



KCS Lighting Inc.
Stonco Division

Ground Water Contour Map
Contours - feet mean sea level

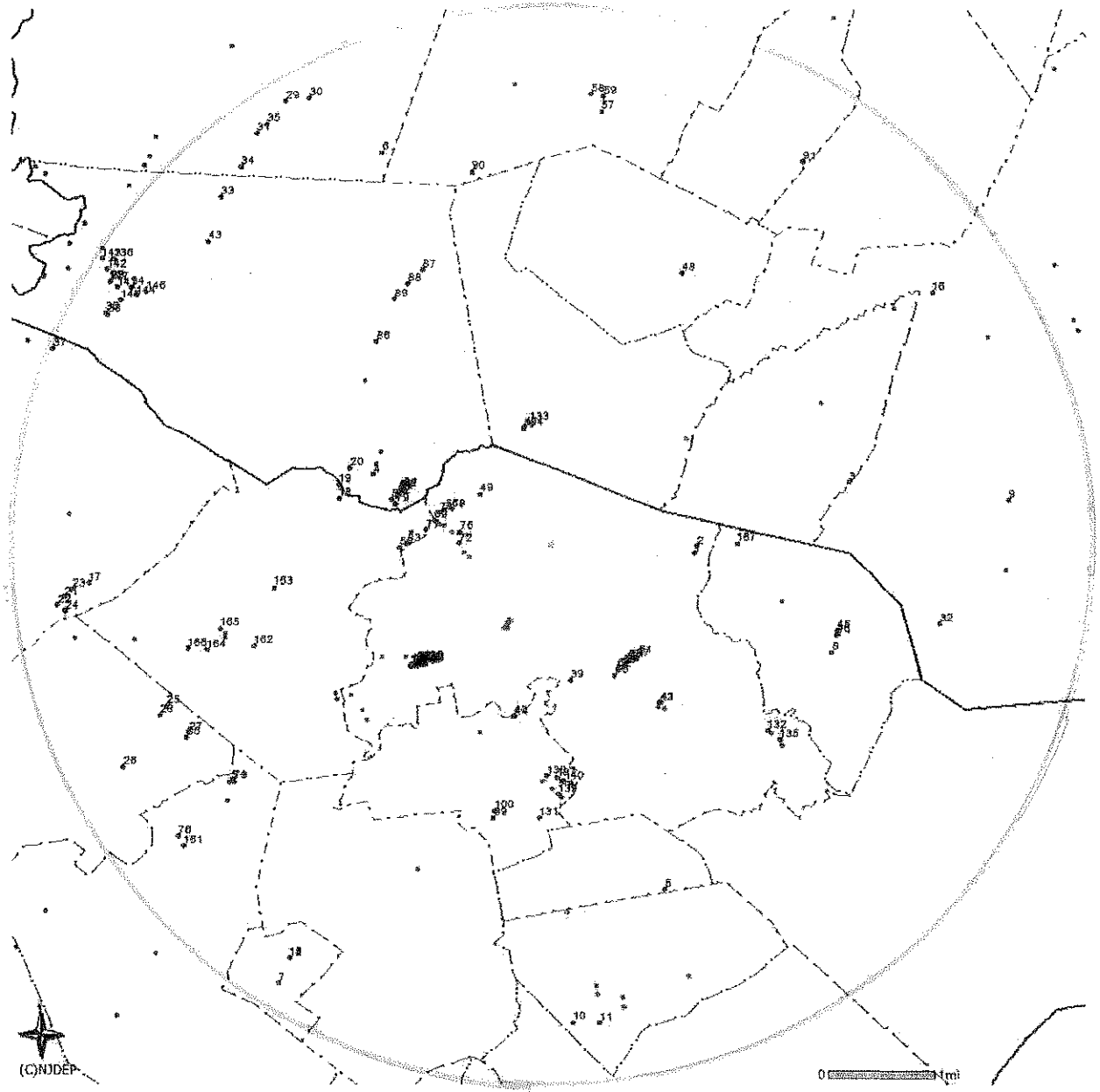
Map 11

100,000 GPD WATER WITHDRAWAL POINTS WITHIN 5 Miles OF :
X : 554371
Y : 683189

SCALE : 1 : 63,360

PLOT PRODUCED BY :
NJDEP
WATER SUPPLY
BUREAU OF WATER ALLOCATION
P.O. Box 426
TRENTON, NJ 08625
DATE : 12/1/2010

SUBJECT TO REVISION



Legend
- Water Allocation, Diversion and Monitoring Locations
- Municipalities
- Counties

MAP 12

Last refresh: 12/1/2010 04:13:18 PM

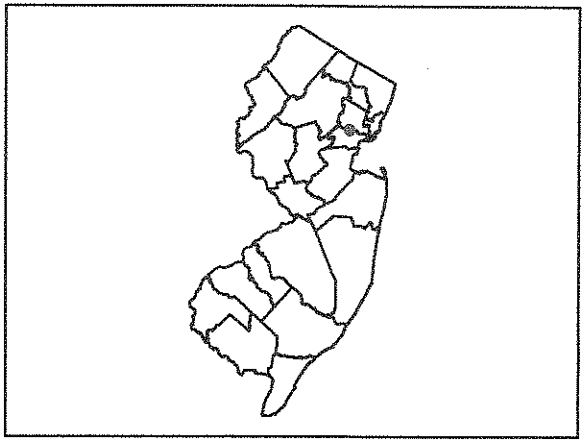
Withdrawal Points Tabular Data (SA)

Sequence Number	PI ID Number (Preferred NJEMS ID)	PI Name	SI Description	Distance from X/Y Origin (mi.)	Dep to Top of Open Interval + Units	Dep To Btm of Open Interval + Units	Z (Elevation)	Geologic Unit	Hydrogeologic Unit	Rate Pum Capac + Un Cod
49	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 48	0.81	65ft	200ft	99	4000 JTrp Passaic Formation	ba Brunswick aquifer	0gm
72	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 44	0.85			81	4000 JTrp Passaic Formation	ba Brunswick aquifer	0gm
76	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 41	0.86			85	4000 JTrp Passaic Formation	ba Brunswick aquifer	180gm
68	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 6L	0.98	25ft	35ft	85	4000 JTrp Passaic Formation	ba Brunswick aquifer	0gm
51	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 21R	1.04	52ft	130ft	81	4000 JTrp Passaic Formation	ba Brunswick aquifer	0gm
78	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 23	1.07			80	4000 JTrp Passaic Formation	ba Brunswick aquifer	0gm
69	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 2L	1.10	35ft	45ft	88	4000 JTrp Passaic Formation	ba Brunswick aquifer	190gm
77	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 32	1.17		200ft	78	4000 JTrp Passaic Formation	ba Brunswick aquifer	0gm
65	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 4A	1.29	44ft	125ft	63	400 Qsd Stratified drift	sg glacial sand and gravel	200gm
54	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 7A (HUMMOCKS)	1.31	65ft	326ft	60	4000 JTrp Passaic Formation	ba Brunswick aquifer	150gm
64	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 5A (HUMMOCKS)	1.31	49.5ft	128ft	57	400 Qsd Stratified drift	sg glacial sand and gravel	150gm
62	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 8A	1.31	68.2ft	125ft	54	400 Qsd Stratified drift	sg glacial sand and gravel	250gm

63	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 6AR	1.31	85ft	130ft	57	400 Qsd Stratified drift	sg glacial sand and gravel	300gm
61	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 17	1.32	101ft	111ft	64	400 Qsd Stratified drift	sg glacial sand and gravel	250gm
67	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL H2	1.33	80ft	100ft	59	400 Qsd Stratified drift	sg glacial sand and gravel	200gm
83	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 36	1.33	65ft	200ft	79	4000 JTrp Passaic Formation	ba Brunswick aquifer	130gm
66	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	COLLECTOR	1.34	97ft	98ft	54	400 Qsd Stratified drift	sg glacial sand and gravel	2500gm
50	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 47	1.40	65ft	200ft	80	4000 JTrp Passaic Formation	ba Brunswick aquifer	150gm
52	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 5A (SPRINGFIELD)	1.46	77ft	140ft	96	4000 JTrp Passaic Formation	ba Brunswick aquifer	215gm
84	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 7A (SPRINGFIELD)	1.47	75ft	140ft	89	4000 JTrp Passaic Formation	ba Brunswick aquifer	0gm
81	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 53	1.48	67ft	107ft	94	4000 JTrp Passaic Formation	ba Brunswick aquifer	400gm
55	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 1AR	1.48	52ft	72ft	94	400 Qsd Stratified drift	sg glacial sand and gravel	200gm
56	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 1A	1.49	71ft	142ft	94	400 Qsd Stratified drift	sg glacial sand and gravel	0gm
79	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 55	1.49	49ft	102.5ft	89	4000 JTrp Passaic Formation	ba Brunswick aquifer	320gm
60	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 6A	1.50	75ft	113ft	94	4000 JTrp Passaic Formation	ba Brunswick aquifer	350gm
53	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 2A	1.50	78ft	162ft	93	4000 JTrp Passaic Formation	ba Brunswick aquifer	140gm
		NJ AMERICAN						4000 JTrp		

82	5020X	WATER - RARITAN SYSTEM	WELL 50	1.50	65ft	200ft	95	Passaic Formation	ba Brunswick aquifer	0gm
80	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	WELL 54	1.54	47ft	97.5ft	94	4000 JTrp Passaic Formation	ba Brunswick aquifer	370gm
20	5008X	NJ AMERICAN WATER SHORT HILLS	KELLY C	2.00			103	400 Qsd Stratified drift	sg glacial sand and gravel	1042gm
18	5008X	NJ AMERICAN WATER SHORT HILLS	KELLY A	2.01			100	400 Qsd Stratified drift	sg glacial sand and gravel	1250gm
19	5008X	NJ AMERICAN WATER SHORT HILLS	KELLY B	2.05			99	400 Qsd Stratified drift	sg glacial sand and gravel	1250gm
86	5077	ORANGE CITY WATER DEPT	WELL 5	2.50	74ft	104ft	211.882	400 Qsd Stratified drift	sg glacial sand and gravel	700gm
100	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	QUINTON AVE WELL	2.50			93	4000 JTrp Passaic Formation	ba Brunswick aquifer	250gm
99	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	RICHFIELD AVE WELL	2.57			86	4000 JTrp Passaic Formation	ba Brunswick aquifer	250gm
89	5077	ORANGE CITY WATER DEPT	WELL 2	2.72			256	400 Qsd Stratified drift	sg glacial sand and gravel	700gm
88	5077	ORANGE CITY WATER DEPT	WELL 3	2.79			246	400 Qsd Stratified drift	sg glacial sand and gravel	1200gm
48	5073	SOUTH ORANGE VILLAGE TWP WATER DEPT	WELL 17	2.83	27.5ft	343ft	215	4000 JTrp Passaic Formation	ba Brunswick aquifer	400gm
87	5077	ORANGE CITY WATER DEPT	WELL 4	2.84			255	400 Qsd Stratified drift	sg glacial sand and gravel	1400gm
90	5077	ORANGE CITY WATER DEPT	WELL 6	3.55	74ft	125ft	333	400 Qsd Stratified drift	sg glacial sand and gravel	800gm
27	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	BRISTOL RD WELL	3.77			144	3070 Trb Brunswick Formation (superceded by Passaic, Feltville, Towaco, and Boonton Formations)	ba Brunswick aquifer	330gm
		NJ AMERICAN						3070 Trb Brunswick Formation (superceded		

25	5020X	WATER - RARITAN SYSTEM	CHARLES ST WELL 1	3.86			142	by Passaic, Feltville, Towaco, and Boonton Formations)	ba Brunswick aquifer	400gm
28	5020X	NJ AMERICAN WATER - RARITAN SYSTEM	CHARLES ST WELL 2	3.94			146	3070 Trb Brunswick Formation (superceded by Passaic, Feltville, Towaco, and Boonton Formations)	ba Brunswick aquifer	220gm



Legend

FEMA Flood Hazard Areas (DFIRM)

Legend

- 100-Year Flood
- 500-Year Flood
- Floodway

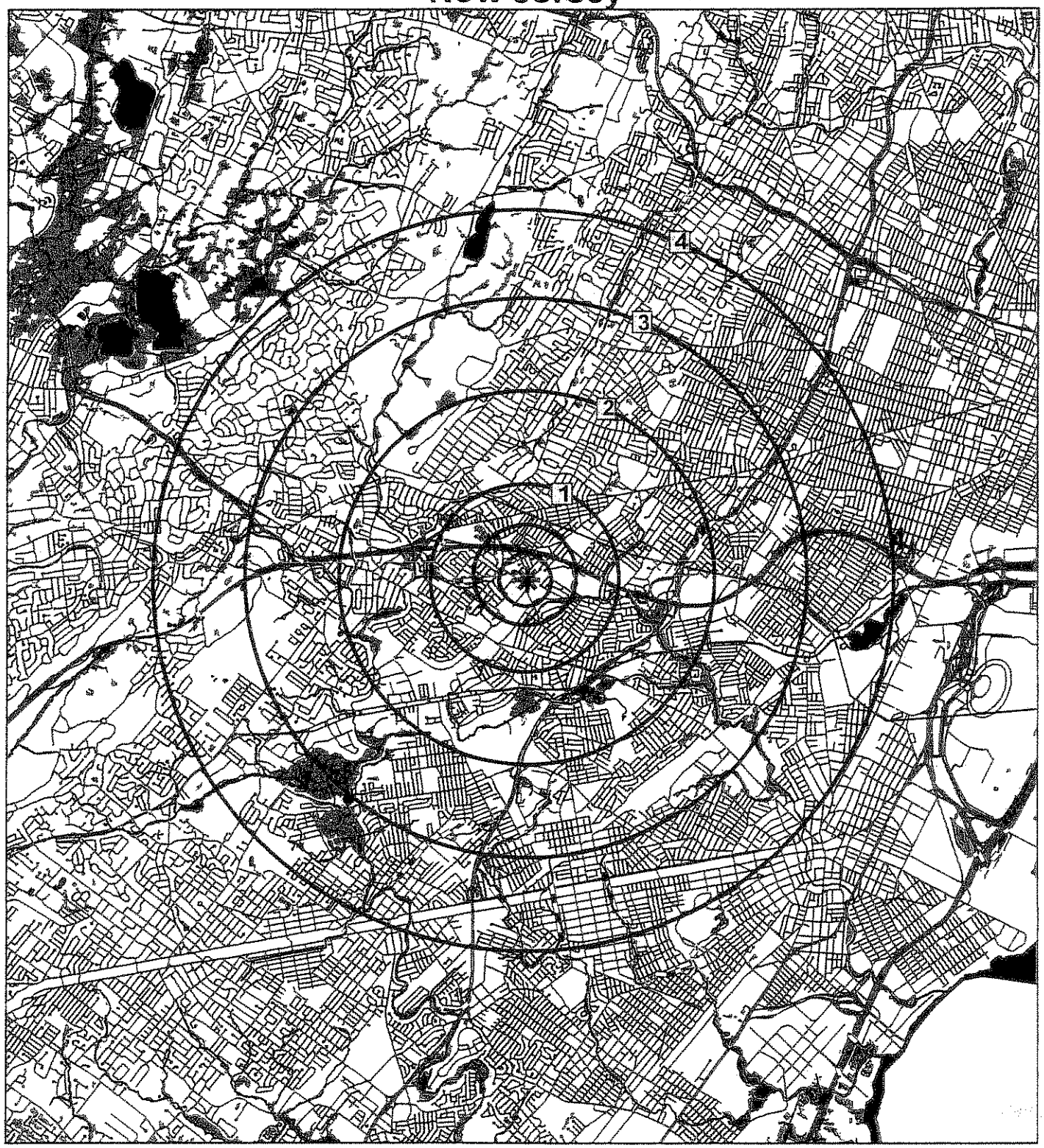
0 175 350 700 1,050 1,400 Feet

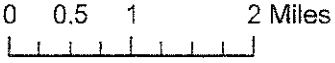
KCS Lighting Inc. - Stonco Division

Flood Hazard Map

Map 13

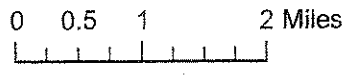
MAP 14 Wetlands Map
KCS Lighting - Stonco Div.
Union Twp., Union County
40.708795 lat - 74.275461 long.
New Jersey



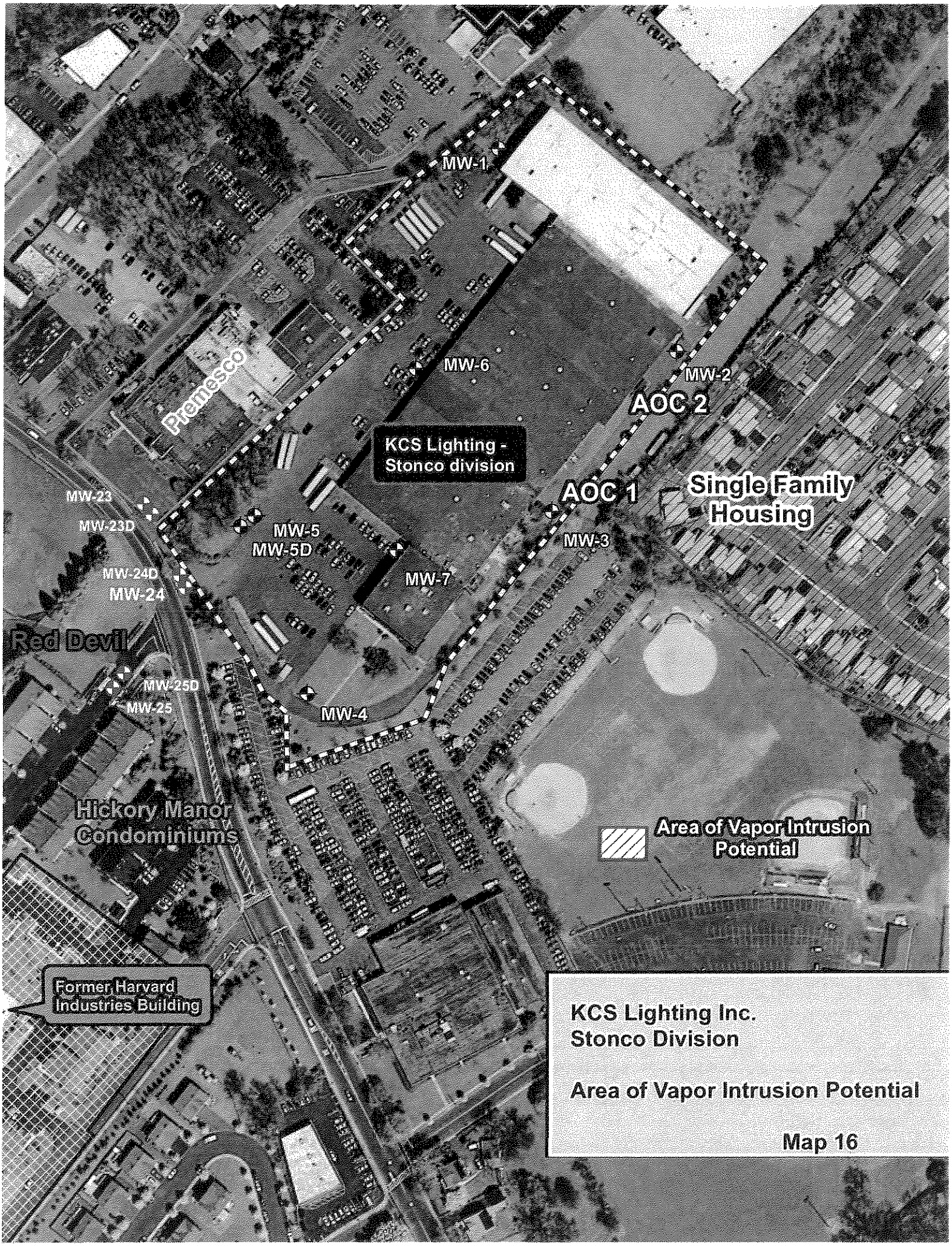


MAP 15 Population Map
KCS Lighting - Stonco Div.
Union Twp., Union County
40.708795 lat - 74.275461 long.
New Jersey

Ring	1	(0.00 – 0.25)	has	Population:	646
Ring	2	(0.25 – 0.50)	has	Population:	4,771
Ring	3	(0.50 – 1.00)	has	Population:	19,923
Ring	4	(1.00 – 2.00)	has	Population:	60,639
Ring	5	(2.00 – 3.00)	has	Population:	111,253
Ring	6	(3.00 – 4.00)	has	Population:	190,901



* Based on 2000 Census Data


MW-1
MW-6
MW-2
AOC 2
Premesco
KCS Lighting -
Stonco division
AOC 1
Single Family
Housing
MW-23
MW-23D
MW-5
MW-5D
MW-3
MW-24D
MW-24
MW-7
Red Devil
MW-25D
MW-25
MW-4
Hickory Manor
Condominiums
Area of Vapor Intrusion
Potential
Former Harvard
Industries Building
KCS Lighting Inc.
Stonco Division
Area of Vapor Intrusion Potential
Map 16

ATTACHMENT A

SITE INVESTIGATION

KCS Lighting Inc – Stonco Lighting Division

Aka: Keene – Stonco LOC
The Genlyte Thomas Group, LLC
Philips Electronics North America

2345 Vauxhall Road
Union
Union County, New Jersey
EPA ID No.: NJD053513644

Volume I of I

New Jersey Department of Environmental Protection
Site Remediation Program
Bureau of Environmental Measurements and Site Assessment

April 2011 NJDEP COPY

KCS Lighting, Inc. – Stonco Division
2345 Vauxhall Road
Union, New Jersey 07083
EPA ID No.: NJD053513644

Narrative

Maps

1) United States Geological Survey Topographic Map – Roselle Quadrangle (1981)

2) Township of Union, Tax Map (1982 Base Map)

3) Union County – Road Map Google Maps (2011)

4) KCS Lighting, Inc. Stonco Division Surrounding Property Map, Aerial Image Base Map (2007)

5) Sanborn Fire Insurance Map (1958)

6) KCS Lighting, Inc. Stonco Division Site Map w/ AOCs (unknown date)

7) EcolSciences, Inc. Ground Water Elevation Maps for Shallow Ground Water – (December 2007)

8) EcolSciences, Inc. Ground Water Elevation Maps for Deep Ground Water – (December 2007)

9) KCS Lighting, Inc. Stonco Division Boring Location Map, Aerial Image Base (2007)

10) Premesco, Inc. TCE in Ground Water Concentrations - 2010 Boring Information and Red Devil 2007 Monitoring Well Sampling Analytical Results

11) Five - Mile Radius, Water Withdrawal Points Map, NJDEP, Bureau of Water Supply (December 2010)

12) Flood Hazard Map KCS Lighting, Inc. Stonco Division, Inc Aerial Image Base Map (2007)

13) Wetlands Map KCS Lighting, Inc. Stonco Division, Inc. NJDOT Roads Base Map (2002)

14) Population Map KCS Lighting, Inc. Stonco Division, Inc. NJDOT Roads Base Map (2000 Census Data)

15) KCS Lighting, Inc. Stonco Division, Area of Vapor Intrusion Potential, Aerial Image Base; (2007)

Attachments

A) NJDEP, Division of Responsible Party Site Remediation, Preliminary Assessment Report; October 1, 1999

B) Home Town Locator. http://newjersey.hometownlocator.com/zip-codes/data,zipcode, 07083.cfm. United States Census 2000

C) NJDEP, Division of Hazardous Waste Management Industrial Site Evaluation Element, General Information Notice; May 1, 1998

D) NJDEP, SA Waste Manifest Chart and NJDEP, Division of Hazardous Waste Management Waste Manifests from Generator NJD053513644 to Specified TSD's Summary of NJDEP Hazardous Waste Manifest Search; 1980 – 2009

E) Summary of NJDEP Community Right to Know NJDEP Facits Data Base

F) Site Investigation Report – Genlyte Corporation – Stonco Facility, Attachment 5; October 5, 1999.

G) NJDEP, Bureau of Field Operations ISRA initial Notices, Letter to Richard Bindelglass, The Genlyte Group Inc; January 18, 2000

H) Blasland, Bouck & Lee, Inc. Letter to Mr. Charles Salter NJDEP, Bureau of Field Operations ISRA Initial Notice; September 1, 2000

I) NJDEP, Bureau of Field Operations ISRA initial Notices, Negative Declaration Affidavit, Stonco Lighting; October 2000

J) NJDEP, Bureau of Field Operations, Letter to Randy Holub, Stonco Lighting Re: No Further Action Letter; October 25, 2000

K) United States Environmental Protection Agency Region 2 Laboratory Data Reports: Premesco, Inc. September 20, 2010 and KCS Lighting Inc.; September 9, 2010

L) NJDEP Mobil Lab data package for two soil samples; September 1, 2010

M) Memo from Steven Hoke, NJDEP, Bureau of Site Assessment – Compounds detected in soil sample from boring B-5; March 21, 2010

N) EcolSciences, Inc. Monitoring Well and Ground Water Elevation Summary and Ground Water Analytical Data for Deep Overburden Monitoring Wells; December 24, 2007 Ground Water Elevation Maps for Shallow and Deep Ground Water; June 2004, August 2004, April 2005, May 2005 and November 2007

O) EcolSciences, Inc. Monitoring Well Diagrams; December 3, 2007

P) NJDEP, Bureau of Environmental Measurements and Site Assessment, Premrefco, Inc. Site Investigation Report; March 2011

Q) NJDEP, Bureau of Site Assessment Site Investigation Report, Durex, Inc.; May 1992

R) NJDEP, Bureau of Environmental Measurements and Site Assessment Memo to File (July 2009) and Descriptions of Water Systems for the NJ American Water Company Raritan Water System, South Orange Water Department, Orange City Water Company, and the NJ American Water Company Short Hills Water System; January 2011

S) NJDEP Environmental Concerns Tracking Sheet – Amerace Corporation – ESNA Division Harvard Industries; 1999 and NJDEP Letter to David Farer, Farer Fersko Re: No Further Action Letter; May 5, 1999

T) United States Department of Agriculture Natural Resources Conservation Service New Jersey 24 Hour Rainfall Frequency Data; October 2008

SITE INVESTIGATION REPORT

PART I: GENERAL INFORMATION

Site Name: KCS Lighting Inc Stonco Lighting Division
Aka: Keene – Stonco LOC
The Genlyte Thomas Group, LLC
Philips Electronics North America

Address: 2345 Vauxhall Rd.
Municipality: Union **State:** New Jersey **Zip Code:** 07083
County: Union
EPA ID No.: NJD053513644
Block: 5609 **Lot(s):** 32, 34, 35
Latitude: +40.708703 **Longitude:** -74.274845 (decimal)
40 ° 42'31" -74 ° 16'29" (ddmmss)

USGS Quadrangle: Roselle
Acreage: 10.09 **SIC Code:** 3646

Block 5609 Lot 35.01
Current Owner: Genlyte Group
Mailing Address: 2345 Vauxhall Rd.
City: Union **State:** NJ **Zip Code:** 07083
Telephone No.: (908) 964-7000

Operator: Same

Owner/Operator History:

NAME	OPERATOR/ OWNER	DATES	
		FROM	TO
The Estate of Caroline A. Foster	Owner	Pre-1857	9/27/39
Leandro Gallini and Evelyn Gallini	Owner	1939	1953
A.P.W. Products, Hazel Bishop Co./ J.L. Hammett Company	Operator Owner	1953	1979
Stonco/Keene Corporation	Operator/Owner	8/31/79	7/31/84
Stonco/KCS Lighting, Inc	Operator/Owner	7/31/84	8/19/92
Stonco/The Genlyte Group, Inc.	Operator/Owner	8/19/92	2008
Stonco/Philips	Operator/Owner	2008	Present

The main building on the KCS Lighting, Inc. Stonco Division (Stonco) property (site) was constructed by the J.L. Hammett Company in 1953. During their ownership, the property was operated by A.P.W. Products Co. Inc. (A.P.W.) and later by the Hazel Bishop Company. A.P.W. was a paper goods manufacturer. The Hazel Bishop Company took over the operations from A.P.W. toward the early 1960's. Hazel Bishop was a chemist who developed the first smudge-proof lipstick and operated her own cosmetics manufacturing firm on the subject property. The J.L. Hammett Company sold the property to the Keene Corporation in 1979. KCS Lighting Inc. acquired the assets of Keene Lighting Products divisions of Keene Corporation in July 1984. KCS Lighting, Inc. was merged into the Genlyte Group, Inc. in June 1986, with property ownership transferred in August 1992. The facility was operated by the Stonco Lighting Division (Stonco) from 1979 to 2008, when Philips Electronics North America (Philips) took ownership. Stonco is currently listed as a Philips Group Brand. (Attachment A) According to the Philips Project Manager for the site, Stonco ceased operations on April 1, 2011 and maintained a crew of 12 employees to oversee the removal of the equipment.

Surrounding Land Use (zoning, adjacent properties): Stonco operated their manufacturing facility on a 9.35 acre property owned by Genlyte Group (Block 5609 Lot 35.01) (Maps 1 and 2). Adjacent to the Stonco facility on the southeastern border is the Lincoln Technical Institute which provides training for young adults in a variety of vocational skills. Southwest of Stonco is Vauxhall Road across from which are the Hickory Manor Condominiums where a major manufacturing plant called Harvard Industries used to be located. Sharing the northwestern property boundary is a building labeled Tessler and Weiss. The NJDEP, Bureau of Environmental Measurements and Site Assessment (SA) recently completed a Site Investigation Report (SI) at Tessler and Weiss, a.k.a Premrefco/Premesco (SI is named Premrefco, Inc.) Also, northwest of Stonco, is a facility operated by Federal Express. The Federal Express facility arranges the distribution of packaging and cargo and maintains their truck fleet. Oliner Fibre, a manufacturer of industrial paperboards, plastics, and products for the heat sealing and loose leaf industries, is located to the northeast of the Stonco Facility. A review of NJDEP Right to Know files and Hazardous Waste Manifesting information revealed that Oliner Fibre did not use hazardous materials nor generate hazardous waste. (Maps 3 and 4)

Distance to Nearest Residence or School: A residence is located less than 150 feet southeast of the Stonco Facility (Map 3)
Direction: Southeast
Population Density (residents per square mile): 5,786 (Attachment B)

PART II: SITE OPERATIONS

Discuss all current and past operations at the site. Include a description of the buildings or structures on site and their physical condition. In addition, tabulate all areas of concern (AOC) and provide the waste source type for each AOC. Include the physical state of waste at each AOC as stored or disposed, the condition of containers and the presence or absence of secondary containment and the volume of waste stored or disposed, or the volume or area of contaminated soil or water.

The following historical information was obtained from a NJDEP Industrial Site Recovery Act (ISRA) submission by Stonco on May 1, 1998. The submission (ISRA Case #E1998203) was made because The Genlyte Group Inc. was attempting to transfer their property and assets to the Genlyte Thomas Group, LLC. Besides the General Information Notice (Attachment C) Stonco submitted a Preliminary Assessment Report and a Site Investigation Report. Information concerning Stonco's recent operations was obtained through a site visit and interviews with plant personnel.

The Stonco site was undeveloped until the main building was constructed in 1953. The J.L. Hammett Company, who also had operations in the nearby Fed Ex Building, initially owned the site building, but it was operated by A.P.W. Products. (Map 5) Both companies were involved in paper goods manufacturing. In approximately 1960, a cosmetic company called Hazel Bishop operated at the site. Hazel Bishop was a chemist who developed the first smudge-proof lipstick. She started her own cosmetics firm and produced water-based lipstick and toothpaste at the site. The company utilized a railroad siding formerly located on the northeastern portion of the subject property for transportation. The siding is inactive. Details of Hazel Bishop operations were not available. (Attachment A)

Records indicate that Stonco has operated at the site from 1979 to the present. Current employees at Stonco were not familiar with the historical operations of the plant. Operations at the plant include the administrative, manufacturing and warehousing operations related to the manufacture and distribution of lighting products and components, particularly outdoor and industrial housings and components. Supplies, parts and electronic components are delivered to the receiving area and either stored in the receiving areas or moved to other storage areas located near the assembly areas.

Stonco assembled a variety of lighting fixtures and characterized their main work as light assembly with drilling and minor tapping. Stonco does not fabricate parts, but a portion of their current operations involves the finishing of premade cast lighting housing. The housing boxes are finished in a closed system where they are powder coated using dry electrostatic deposition with baking enamel. Some items requiring minor machining or custom coating are sent to machining areas or to the wet paint room. Light housings and components are assembled on lines and stored on pallets. (Attachment A)

Prior to 1985, Stonco had a wet paint finishing process. Hazardous waste manifests confirm that wastes F001 and F002 (spent solvents) were last shipped out of Stonco in 1985, and a different waste stream was manifested after 1985. (Attachment D) A site map of the Stonco Facility prepared in 1998 in support of Stonco's ISRA Application, identifies areas where chemicals and hazardous wastes were once stored. (Map 6) SA obtained New Jersey Right to Know information for the Genlyte Stonco facility and summarized the solvent use from 1992 to 2008. (Attachment E) In it, the use of TCE and TCA was documented from 1992 to 1997. The reports indicated that ten gallons were on site every day and the use was in the machine shop. It is possible that the solvents were used in a closed parts washing system. NJDEP also obtained waste manifests from the NJDEP, Bureau of Hazardous Waste Management. The manifests confirmed that waste code F001 – spent halogen solvent and sludge degreaser – were shipped from Stonco between 1982 and 1985. (Attachment D)

During the 1990's, operations at Stonco resulted in recyclable trash (scrap metal, cardboard, paper, wooden pallets, etc.), general trash, municipal refuse and hazardous wastes that were

disposed through certified haulers or recyclers. A compactor was used to consolidate recyclable paper products, and a dumpster for municipal trash was located near the hazardous waste storage area. (Map 6) All waste chemicals and residuals associated with the painting process, part machining, equipment cleaning and maintenance were reportedly handled and managed as hazardous waste. Wastes manifested after 1985 included liquid chemical wastes, solid chemical waste, spent acids, chromium and lead. These materials were accumulated into drums and stored in the hazardous waste storage areas. All drums were stored within portable secondary containment devices and the full drums were collected by a certified hazardous waste disposal for disposal off site. As of April 1999, there was no record of a hazardous waste discharge. (Attachment A)

During Stonco's operation at the site, waste water discharges were reportedly limited to employee sanitary services, discharges from a pre-paint parts washer and building maintenance. Waste water discharges were made to the sanitary sewer system operated by the Joint Meeting of Essex and Union counties. The pre-paint parts washer incorporated five stages of cleaning including one detergent wash (caustic), two acidic agent rinses and two water rinses. The pre-paint parts washer was periodically cleaned of any non-liquid residues by a certified contractor who properly disposed any residuals offsite. (Attachment A)

As the result of sampling their waste water effluent, Stonco was given an Administrative Notice by the Joint Meeting of Essex and Union Counties on March 10, 1998. The violation was for elevated concentrations of zinc detected in sanitary sewer discharge above permit levels. The violation was resolved when Stonco identified the source of the zinc as residue from the paint hook cleaning process which was being transferred into the parts wash system and then into the sanitary sewer system. The cleaning process was discontinued and there were no further violations. (Attachment A)

Two underground storage tanks (USTs), associated with the boiler room, were formerly located at the Stonco facility. The USTs had capacities of 500 and 10,000 gallons and contained No. 2 fuel oil for the plant boiler. The USTs were removed in December of 1985 and visual reports made during the removal indicated there was no release of heating oil. However, since there were no photographs, monitoring data or sampling data to confirm the soil conditions, Stonco and their consultants, Bousland, Bouck & Lee, Inc., now Arcadis (BBL), conducted soil sampling in the former UST excavations as part of a Site Investigation Report for the site to support their ISRA application. Two test pits were dug in the areas where the two USTs were formerly located and soil samples were collected in support of the UST closure (Map 6). Analysis of the soil samples indicated that total petroleum hydrocarbons (TPH) were detected at a concentration of 21,500 parts per million (ppm) exceeding the NJDEP Soil Cleanup Criteria (SCC) of 10,000 ppm. The same soil sample from which the high TPH concentrations were detected was analyzed for volatile organic compounds (VOCs) +10 library search compounds and tetrachloroethene (PCE) was detected at a concentration of 170 ppb. The PCE concentration was below the NJDEP SCC of 1,000 ppb. It is not known how PCE was introduced to the soil in this area. Consultants for Stonco concluded that since the visibly stained soils were excavated and removed and detected contamination was localized and horizontally delineated, no further action was necessary in relation to the UST excavations. (Attachment F)

Stonco submitted a Preliminary Assessment and Site Investigation Report to the NJDEP, Bureau of Field Operations ISRA Initial Notice Section in 1999. After their review of the report,

the NJDEP had concerns over two items detailed in the report (Attachment G). The first concern was the elevated detection of zinc in a waste water discharge to the public sewer. The NJDEP asked for confirmation that all of the floor drains in the Stonco building discharged into the sanitary sewer. Stonco provided site maps that showed the floor drains were connected to the sanitary sewer line (Map 6)

The second concern resulted from information in the PA/SI Report that confirmed the presence of TPH at 21,500 ppm in sample A-4. The report also stated that because adjacent soil samples were below NJDEP SCC, the elevated concentration of TPH had been delineated horizontally. The NJDEP expressed concern that the soil contamination associated with the test pits was not delineated vertically and confirmed that an NFA would not be issued unless the TPH detection was vertically delineated.

BBL advanced an additional boring in the area where soil sample A-4 was collected. Two soil samples were collected from the soil boring at depths of 10 to 10.5 feet below ground surface (bgs) and 12 to 12.5 bgs from a Geoprobe equipped with split spoon samplers and analyzed for TPH. The results of the analysis indicated TPH concentrations of 121 ppm and 1,720 ppm, respectively and each sample was below the SCC of 10,000 ppm. In addition, a soil sample was collected for VOC analysis at the interval 12 to 12.5 bgs and the analytical result indicated that VOCs were not detected. (Attachment H) After a series of letters addressing minor issues were exchanged between Stonco and the NJDEP, Stonco submitted a Negative Declaration Affidavit to the NJDEP Bureau of Field Operations in October of 2000. The NJDEP followed up with a NFA letter to Stonco also in October 2000. (Attachment I)

SA initiated an investigation of Stonco in early 2010 as part of a regional investigation to identify the source of indoor air contamination at the Hickory Manor Condominiums (condos) located at Vauxhall Road and Swanstrom Place in Union, NJ. (Map 4) In the early 2000's, the condo's were built on property formerly operated by the Amerace Corporation, Division of Harvard Industries/Elastic Stop Nut Division (Harvard Industries). The Harvard Industries facility was a large manufacturing plant that produced parts for the auto industry. Harvard Industries was required to conduct remedial investigations at their facility before they could be issued a No Further Action designation (NFA). After several years of tenant occupancy, trichloroethylene (TCE) was detected in the indoor air of the condos at concentrations exceeding NJDEP Rapid Action Levels. The NJDEP responded by installing sub-slab remediation systems in most of the condo units. Two suspected sources of contamination detected at the condos were Red Devil Inc., located adjacent to and hydraulically upgradient of the condos and Harvard Industries. (Map 4) After many years of environmental investigation and remediation, Harvard Industries was granted a no further action (NFA) designation for its site in 1999 (Attachment J). Red Devil ceased operations at their Vauxhall Road facility in 2001 and future plans call for a separate condominium community to be developed on their site.

Since Stonco is located hydraulically upgradient of the Hickory Manor Condominiums and the use of chlorinated solvents at their plant documented, SA was tasked to investigate Stonco as a suspected source of the TCE detected in the indoor air at the condos. Prior investigations at Stonco included only a limited subsurface investigation related to the USTs and ground water sampling has never been conducted on the Stonco site. As part of the Harvard Industries and Red Devil remedial investigations, monitoring wells MW-24 and MW-24D were installed on the right-of-way of Vauxhall Road in a position hydraulically downgradient of Stonco. Analysis of ground water collected from MW-24 in December 2007 indicated tetrachloroethene (TCE)

concentrations of 230 parts per billion (ppb) and tetrachloroethene (PCE) concentrations of 4 ppb, both exceeding the NJDEP ground water quality standard of 1 ppb. Since the monitoring wells were installed upgradient of the Hickory Manor Condominiums and Red Devil, it has become important to discover the origin of the contamination in MW-24 and 24D in order to remediate the source. (Map 7)

SA toured the Stonco facility on April 29, 2010 and observed the current manufacturing activities. There was no hazardous waste generated at the site and wastes streams consisted of trash and non-hazardous phosphates. There were problems in the past when sampling of the plant sewer effluent indicated elevated concentrations of zinc. These discharges were related to the powder coating process and measures were taken to eliminate the discharge of zinc. Plant personnel also informed SA that Stonco utilized a wet paint process prior to 1985 and that the paints used were water-based. SA identified the area within the Stonco plant where wet painting had occurred and targeted the building's exterior adjacent to the paint area for ground water sampling. SA also toured the remainder of the exterior of the facility to identify any areas of concern (AOCs) and determine locations to advance additional borings for the subsurface investigation.

SA conducted the site investigation in September and October of 2010. SA also conducted a subsurface investigation at Premrefco located adjacent to and northwest of Stonco (Map 4). The two investigations were conducted concurrently because boring locations to assess AOCs at Premrefco were located on the Stonco site. Because ground water flow is in a southwestern direction, SA advanced three borings on the Stonco property to assess ground water conditions adjacent to the Premrefco site. The analytical results of ground water collected from ground water samples collected from the borings indicated concentrations of TCE in the shallow aquifer as high as 670 ppb, 1,1-dichloroethene (1,1-DCE) as high as 310 ppb and 1,1,1-trichloroethane (TCA) as high as 240 ppb. Based upon the current understanding of ground water flow, none of the contamination detected on the western side of the Stonco building, resulted from operations at Stonco. (Maps 7, 8 and 9)

Based on the review of ISRA submittals and the initial site visit, SA developed a work plan which addressed two AOCs. AOC 1 is located in the area where the former USTs were located. (Map 6) Also within the area is a pipe which carried liquid waste materials from floor drains located in the paint storage area and an area where painting occurred. SA advanced boring SB-5 in an attempt to intersect the bottom of the former 10,000 gallon heating oil UST. Based upon elevated readings from a TVA organic vapor analyzer, SA selected two intervals from which to collect soil samples. The intervals were 13 to 13.5 feet and 16 to 16.5 feet bgs. In spite of strong petroleum hydrocarbon odors in the first interval, sample analysis indicated that there were no VOCs detected in either sample. A ground water sample was collected at a depth of 49 feet bgs, near the bedrock interface. Analysis of the sample indicated concentrations of tetrachloroethene (PCE) at 19.9 ppb and TCE at 27.9 ppb. The detection of PCE and TCE in the ground water confirms that a release of the solvents occurred at the Stonco facility. It is possible that the release of the solvents was due to a leaking sewer line.

AOC 2 is located on the eastern corner of the Stonco facility where Stonco stored hazardous waste and chemicals. A railway siding was also located in this area, but it was not used by Stonco and only a partially buried rail remains of the siding. Soil borings SB-2 and SB-3 were advanced in the area and soils samples were collected from each boring based upon screening with the TVA organic vapor analyzer. Soil samples were collected from SB-3 at depths of 4.5 to 5 feet

(SB-3S) and 10.5 to 11 feet bgs (SB-3B). PCE was detected at a concentration of 11 ppb in SB-3B, but there were no other volatiles detected in either sample. Soil samples were not collected from SB-2. Ground water samples were collected from both boring SB-2 and SB-3. In SB-2, TCE was detected at a concentration of 9.7 ppb and PCE was detected at a concentration of 8.7 ppb. In SB-3, TCE was detected at a concentration of 13 ppb and PCE was detected at a concentration of 5.1 ppb. The NJDEP GWQS of 1 ppb for each compound in both borings was exceeded. (Map 6)

AOC SUMMARY TABLE

AOC Name	Source Type	CERCLA Exempt	Physical State	Waste Quantity
Former UST area and floor drain discharge pipe	Other	No	Liquid	Unknown
Area adjacent to hazardous waste storage area	Other	No	Liquid	Unknown

PART III: PERMITS

A. NJPDES

Number	Date Issued	Expiration Date	Formation or Water Body Discharged To
N/A			

B. New Jersey Air Pollution Control Certificates

Plant ID No.:
No. of Certificates: N/A
Equipment Permitted: N/A

C. BUST Registration

Registration No.: USTs were not registered. Closed in 1985.
No. of Tanks: 2

Tank No.	Capacity (gallons)	Contents of Tank	Status
UST 1	500	Heating oil	Removed in 1985
UST 2	10,000	Heating oil	Removed in 1985

D. RCRA Status (TSD, Generator, Protective Filer, etc.) N/A

E. Other Permits (RCRA, NRC, etc.)

Issuing Agency	Permit Type	Permit No.	Date Issued	Expiration Date
N/A				

PART IV: SOIL EXPOSURE

Describe soil type. Include soil series, composition of the soil and permeability of the soil.

The soil type at the site is listed in the Soil Survey of Union County New Jersey as Urban Land.

For each sampling event, identify the sampler and date of sampling and list the name, address and certification number of the lab which performed the analyses. State who conducted the quality assurance review of the data and summarize any data qualifications.

Over the years, two soil sampling events occurred at Stonco. During the first event, soil samples were collected as part of confirmatory sampling during the removal of a UST on the southeastern side of Stonco. The second soil sampling event was conducted by NJDEP, SA as part of this SI.

Stonco reportedly used two heating oil USTs to store fuel to heat the plant up until December 1985 when they were removed. Reporting requirements to document the proper closure of USTs were not required in 1985, but there were reports that visual observations made at the time of the UST closures indicated that the USTs had not leaked. (Attachment F) In 1998, Stonco went through ISRA to effect a trade involving an ownership transition. As part of the ISRA submission, a Site Investigation Report was prepared for Stonco addressing a single AOC which was the area in which the two USTs were removed. Because there was no documentation of soil conditions at

the closing, Stonco and their consultants BBL advanced two test pits in 1999 to assess the areas where the USTs were reported to be located. The areas were selected based on interviews with factory personnel and the presence of a former vent pipe.

Excavation A: 10,000 gallon heating oil UST – In 1999, six soil samples were collected from what was thought to be the UST excavation floor. During the preliminary soil excavation, small areas of dark soil were encountered in random locations in the excavation. BBL screened the dark soils and segregated it for disposal. All six soil samples were analyzed for TPH and two samples were analyzed for VOC+10. The results are summarized in the table below. (Map 6)

Excavation B: 500 gallon heating oil UST – In 1999, two soil samples were collected from what was thought to be the UST excavation floor. The two samples were analyzed for TPH and none were analyzed for VOCs. The presence of darkened soil was not reported. (Map 6)

Information concerning the laboratory used and any Quality Assurance Data was not available.

Sample ID	TPH Concentration (ppm)	VOC Detected	VOC Concentration (ppb)	NJDEP SCC (ppb)	Tentatively Identified Compounds (ppb)
Pit A-1	ND	NA	-		-
Pit A-2	40	NA	-		-
Pit A-3	410	tetrachloroethene	170	1,000	78,200
Pit A-4	**21,500**	ND	ND	**10,000**	95,300
Pit A-5	111	NA	-		-
Pit A-6	181	NA	-		-
Pit B-1	ND	NA	-		-
Pit B-2	ND	NA	-		-

ppm – parts per million ppb – parts per billion (Att F)
NA – Not Analyzed ND – Not Detected
VOC – volatile organic compound SCC – NJDEP Soil Cleanup Criteria
Bolded Concentration – Exceeds the SCC of 10,000 ppm

The analysis of the soil samples indicated that a release from the 500 gallon UST in Pit B had not occurred. In Pit A, however, a TPH concentration of 21,500 ppm was detected in sample A-4 exceeding the NJDEP SCC of 10,000 ppm. BBL reasoned that since soil samples collected on either side of sample A-4 were well below the SCC, the exceedance detected in A-4 was localized. BBL also segregated the dark soil encountered during the excavation and disposed a total of ½ cubic yard of the material. PCE was detected in soil sample A-3 at a concentration of 170 ppb, below the SCC of 1,000 ppb. Because the PCE detection was below the NJDEP SCC, BBL made no mention of its detection in the Conclusion/Recommendation section of the SI. (Attachment F) BBL concluded that:

No further action was recommended at this AOC based on the localized nature of the biased sample (A-4), the absence of VOCs in the sample, and the removal of darkened soil from the

base of the excavation at this location. (Attachment F)

NJDEP responded to Stonco in a letter from the Bureau of Field Operations, ISRA Initial Notice Section dated Jan 2000 (Attachment G) and required that additional sampling be conducted because the TPH detected in soil sample A-4 had not been delineated vertically. In June of 2000, BBL went back to the Stonco facility and advanced a soil boring within the test pit they had formerly dug. They screened soils down to 13 feet and collected soil samples at depths of 10 to 10.5 feet and 12 to 12.5 feet bgs. It is interesting to note that the highest reading on the photoionizaton detector (PID) used to screen the two sampling intervals was 12.4 ppb. In the interval 11 – 11.5 feet bgs the PID detected 59.4 ppb VOCs but a sample was not collected. The results of the TPH analysis for soil samples collected at 10 to 10.5 feet and 12 to 12.5 feet bgs was 121 ppm and 1,720 ppm respectively, both less than the SCC of 10,000 ppm. Table 2 of the BBL letter report (Attachment H) indicates that soil samples for TPH and VOCs were collected at each of the two sampling intervals. However, in only the interval from 12.0 to 12.5 feet bgs was VOC data reported and it indicated that there were no detectable concentrations of target VOCs. VOCs, if analyzed at all, were not reported in the 10 to 10.5 foot interval. There were no analytical data sheets accompanying the report. Based upon the apparent vertical delineation, BBL recommended no further action for the UST area and NJDEP accepted. (Attachment I)

Tabulate sample numbers and the associated Area of Concern or describe the sample location. Identify samples which establish background conditions.

The second subsurface investigation at the Genlyte/Stonco site was initiated in September 2010. SA advanced nine borings from which 6 soil samples were collected. SA used a Geoprobe duo-core method where soil is retrieved continuously in a clear macro sleeve (tube) and from which a sample is collected. SA described and screened the soil boring with a TVA organic vapor analyzer. One soil sample was collected from each of four borings (SB-1, SB-3, SB-4 and SB-5) and an additional sample was collected from boring SB-3 at a discrete interval. The samples were collected at the intervals where the highest concentrations of organic vapors were detected with the TVA.

Of the 6 soil samples collected from the Stonco AOC's, only soil samples SB-3B and SB-5B had low detections of PCE. In soil samples SB-5A and SB-5B, VOCs related to petroleum were detected. Most of the soil samples were submitted to the USEPA Region 2 Laboratory in Edison, New Jersey and the data was validated by EPA (Attachment K). Soil samples SB-5A and SB-5B were analyzed by the NJDEP Mobil Lab. (Attachment L)

Sample ID	Date/Collector	Depth (bgs)	Area of Concern
SB-1S	9/9/10 - SA	8– 8.5	Upgradient Sample - background
SB-3S	9/7/10 – SA	4.5 - 5	Hazardous waste storage area
SB-3B	9/7/10 - SA	10.5 – 11	Hazardous waste storage area
SB-4S	9/7/10 - SA	10.5 – 11.0	Chemical storage area
SB-5A	9/1/10 - SA	13 – 13.5	UST area and floor drain discharge
SB-5B	9/1/10 - SA	15.5 - 16	UST area and floor drain discharge

(Map 9)

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Tabulate contaminants identified in the soil. Include sample number, depth, contaminant levels and corresponding NJDEP Soil Remediation Standard.

Sample ID	Date/Collector	Depth (bgs)	Detected Compounds	Concentration (ppm)	NJDEP SRS (ppm)
SB-1S	9/9/10 - SA	8– 8.5	ND		
SB-3S	9/7/10 – SA	4.5 - 5	ND		
SB-3B	9/7/10 - SA	10.5 – 11	tetrachloroethene	0.011	1
SB-4S	9/7/10 - SA	10.5 – 11.0	ND		
SB-5A	9/1/10 - SA	13 – 13.5	Isopropylbenzene	0.160 J	
			n-propylbenzene	0.190 J	
			1,3,5,trimethylbenzene	0.060 J	
			1,2,4 trimethylbenzene	1.420	
			Sec-butylbenzene	1.520	
			4-isopropyltoluene	0.550	
			naphthalene	1.220	100
SB-5B	9/1/10 - SA	15.5 - 16	tetrachloroethene	0.040 J	1
			sec-butylbenzene	0.110 J	
			naphthalene	0.660	100

ND – Non-detect
J – Estimated Concentration
SRS – Soil Remediation Standard

(Attachment K, M – MAP 9)

Discuss contaminants identified in the soil above background and remediation standards and provide the rationale for site attribution. State whether Level 1 or Level 2 contamination is present.

During their investigation in September 2010, SA collected soil samples from four borings and while several compounds were detected, none exceeded their NJDEP Soil Remediation Standard (SRS). PCE was detected in soil borings SB-3 (0.011 ppm), which was located in the area where the hazardous waste storage area was formerly located, and in SB-5 (0.040 ppm), where the former USTs and floor drain discharge piping were located. Each detection was far below the SRS of 1 ppm. In 1999, TPH at a concentration of 21,500 ppm was detected during the closure and removal of a heating oil UST in the area of soil boring B-5. The current Remediation Standard for TPH is 10,000 ppm. Based upon these results, a release to soil above background but below the NJDEP SRS has been documented.

Total area of surficial contamination in square feet: N/A

If no soil sampling has been conducted, discuss areas of potentially contaminated soil, areas that are visibly contaminated or results from soil gas surveys.

Soil sampling was conducted.

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Number of people occupying residences or attending school or day care on or within 200 feet of the site: 50
Number of workers on or within 200 feet of the site: 150
Number of on-site employees: 50

Identify terrestrial sensitive environments within 200 feet of observed contamination.
None were identified

Determine if any commercial agriculture, silviculture, livestock production or grazing are present within 200 feet of observed contamination.
None were identified.

PART V: GROUND WATER ROUTE

A. HYDROGEOLOGY

Describe geologic formations and the aquifer(s) of concern. Include interconnections, confining layers, discontinuities, composition, hydraulic conductivity and permeability.

Ground water in Union County occurs in the voids of unconsolidated stratified drift deposits of Pleistocene age and in joints and fractures of the Brunswick Formation and Watchung Basalt of late Triassic Age. The Brunswick Formation consists of thin-bedded shale, mudstone and sandstone with color variations of reddish-brown to grey. The reddish-brown color originates from reworked hematite which comprises 5 to 10 per cent of the formation. Minerals of the Brunswick Formation include quartz, illite, muscovite, feldspar and small amounts of calcite and gypsum.

The Watchung Basalt consists of three extensive basaltic lava sheets intercalated with sedimentary rocks of the Brunswick Formation. Two of the three lava sheets occur in Union County form the First and Second Watchung Mountains.

Unconsolidated sediments deposited by glaciers or glacier melt water during the Pleistocene Epoch mantled the bedrock surface in Union County. These glacial till deposits consist of clay, silt, sand, gravel and boulders of glacial, glaciolacustrine or glacial fluvial origin. Aquifer tests conducted on an adjacent property to Premesco showed that permeability values for the dense glacial till overburden ranged between 10-2 cm/sec and 10-5 cm/sec indicating low permeability.

The Pleistocene sediments in the bedrock channels consist of unstratified and stratified clay, silt, sand and gravel. Only the sand and gravel deposits of the stratified drift will yield large quantities of water to the wells.

The Brunswick Formation of Late Triassic age is the major aquifer in Union County. Water occurs in joints and fractures which become progressively tighter and fewer with increasing depth below land surface. The joint and fracture system in which ground water is stored may

intersect each other so that water can move vertically as well as horizontally. Ground water occurs in both confined and unconfined conditions in the Brunswick Formation. Unconfined ground water occurs mainly in upland areas where overlying unconsolidated sediments are thin or absent. In the lowland areas in the southern and eastern potions of Union County, the rocks are mantled by unconsolidated Pleistocene deposits containing silt and clay beds which may confine water in the underlying rocks.

Wells tapping the Brunswick Formation generally draw water from several water-bearing zones. In areas where the rocks are exposed or covered by a thin layer of unconsolidated sediments, the shallow water-bearing zones contain unconfined water to depths between 200 and 300 feet. Wells penetrating to depths between 200 and 600 feet generally have the greatest yields.

A network of approximately 20 monitoring wells was constructed on the adjacent Red Devil property, west of Stonco (Map 10). The total depths of the shallow monitoring wells range between 30 and 40 feet deep and ground water depths average 23 feet below ground surface (bgs). At several of the monitoring well locations at Red Devil, wells were installed to the top of bedrock. These monitoring wells are designated with a 'D' after the well ID number. The depth of the deep wells range between 50 and 70 feet bgs and the ground water depths also average 23 feet bgs (Attachment N)

The ground water flow direction calculated from both the shallow and deep monitoring wells is toward the south-southwest from Stonco toward the Hickory Manor Condominiums. Monitoring well MW-24, located on the Vauxhall Road right-of-way and within several feet of the Stonco site, is the most easterly monitoring well and is located hydraulically upgradient relative to the condos. EcolSciences, the consultants for the Red Devil Property, produced a series of ground water flow direction maps from June 2004 to December 2007. Maps were produced for both the shallow and deep monitoring wells and all except the December 2007 ground water elevation maps are included in (Attachment A). The December 2007 Shallow Ground Water Elevation Map (Map 7) and the Deep Ground Water Elevation Map (Map 8) are included in the Figures Section.

Depth to water table: 25 feet
Depth to aquifer of concern: 25 feet
Depth from lowest point of waste disposal/storage to highest seasonal level of the saturated zone of the aquifer of concern: to be determined: 0 feet, aquifer is contaminated

Thickness and permeability of the least permeable layer between the ground surface and the aquifer of concern: 5 to 25 feet bgs, 10 – 4 cm/sec (fractured shale)
Thickness of aquifer: 10,000 feet
Direction of ground water flow: south-southwest
Net precipitation Factor Value: 6
Karst: No

Wellhead Protection Area within 4 miles of the site: Yes
Does a waste source overlie a Wellhead Protection Area: No

B. MONITORING WELL INFORMATION

Briefly discuss why the monitoring wells were installed.

There are no monitoring wells installed on the subject property. However, monitoring wells MW-24 and MW-24D are located on the northern right-of-way of Vauxhall Road, but are located very close to the western portion of the Stonco property. (Map 9) The two monitoring wells are located several feet apart and are screened at separate intervals. Monitoring well MW-24 is screened at the top of the shallow aquifer and MW-23D is screened near the bedrock interface zone. MW-24 was constructed to a depth of 42 feet bgs with 15 feet of screen at its base. Monitoring well MW-23D (deep) was advanced to 65 feet bgs at the top of the bedrock and screened from 55 to 65 feet bgs. The ground water in this interval was isolated to enable sample collection at the top of the bedrock where dense non-aqueous phase liquids such as TCE and TCA tend to accumulate. (Attachment O) The two monitoring wells were installed by EcolSciences, consultants to ARC Union, LLC, the developers of the Red Devil property, to augment existing information and refine the ground water flow direction at Red Devil. Ground water sampling results on the Red Devil site enabled EcolSciences to conclude that there was an off site source of contamination affecting the ground water quality on their property. (Maps 7, 8 and 10)

Monitoring wells MW-23 and MW-23D were also installed by EcolSciences for the same purposes as MW-24 and MW-24D. The monitoring wells were installed in the northern right-of-way of Vauxhall Road very close to the adjacent Premrefco/Premesco property. Monitoring wells MW-24 and MW-24D are ideally positioned to assess ground water quality hydraulically downgradient of three AOCs on the northwestern portion of the Premesco site including the area where the UST was located, the main operations building and the area in which the former hazardous waste storage shed was located. The construction details of the two monitoring wells may also be found in Attachment O. Monitoring wells MW-25 and MW-25-D were installed by EcolSciences in the main entrance driveway of the Hickory Manor Condominiums, on the southern side of Vauxhall Road. The two monitoring wells are located hydraulically downgradient and approximately 700 feet south of the former UST area and floor drain discharge point on the Stonco property. The two monitoring wells are also located 500 feet south-southwest and hydraulically downgradient of a former hazardous waste storage shed located on the Premrefco/Premesco site.

The following table summarizes the analysis of ground water samples collected from the six monitoring wells installed by EcolSciences for their investigation of the Red Devil site. The monitoring well locations are depicted on (Map 10). The ground water samples were collected in December 2007. (Attachment N). Qa/QC supporting documentation was not available.

Tabulate contaminants identified in each well. Include well number, contaminant levels and corresponding NJDEP Ground Water Quality Standard (GWQS).

SAMPLE #	DATE	Screened Interval (feet bgs)	CONTAMINANT	CONCENTRATION (parts per billion)	NJDEP GWQS
* MW-23	12/07	25-40	**trichloroethene**	**900**	1
			tetrachloroethene	**4.9**	1
MW-23D	12/07	56 - 66	**1,1-dichloroethene**	**11**	1
			trichloroethene	**350**	1
* MW-24	12/07	27 - 42	**trichloroethene**	**230**	1
			tetrachloroethene	**4.0**	1
MW-24D	12/07	55 - 65	**1,1-dichloroethene**	**72**	1
			cis-1,2-dichloroethene	1.2	70
			1,1,1-trichloroethane (TCA)	16	30
			trichloroethene	**240**	1
			tetrachloroethene	**4.8**	1
* MW-25	12/07	27 - 42	**trichloroethene**	**900**	1
			tetrachloroethene	**7.7**	1
MW-25D	12/07	55 - 65	**1,1-dichloroethene**	**98**	1
			1,1,1-trichloroethane(TCA)	20	30
			trichloroethene	**400**	1
			tetrachloroethene	**6.4**	1

GWQS – Ground Water Quality Standards
Bolded concentrations exceed NJDEP Ground Water Quality Standards

* Only the TCE and PCE concentrations for the shallow monitoring wells, MW-23, MW-24 and MW-25 were available to SA. Because of their relative depths, the 'D' monitoring wells are more comparable to the borings advanced by SA in September 2010. It is likely that the ratios of the compounds detected in the deep monitoring wells are similar to those expected to be detected in the shallow monitoring wells.

Discuss contaminants identified in the monitoring wells above background and the ground water quality standards and provide the rationale for site attribution. State whether Level 1 or Level 2 contamination is present.

Four of the six monitoring wells in the above table are located hydraulically downgradient of the

two AOCs identified at Stonco. Monitoring wells MW-24 and MW-24D are located adjacent to the Stonco site (Maps 7, 8 and 10). TCE and PCE were detected in the two monitoring wells and 1,1-DCE, a breakdown product of TCA, was detected in MW-24D. It is important to remember that the full volatile scan for MW-24 was not available and 1,1-DCE was likely to have been present in it as well. The presence of 1,1-DCE in MW-24D coupled with the absence of TCA indicates that the release is likely to be older due to the low concentration of TCA. TCE, with an NJDEP GWQS of 1 ppb, was detected at 230 ppb in MW-23 and 240 ppb in MW-23D. PCE, also with an NJDEP GWQS of 1 ppb, was detected at 4.0 ppb in MW-23 and 4.8 ppb in MW-23D

Documentation obtained for Stonco indicates that chlorinated solvents were used at the site as part of a wet paint process and for parts cleaning. Operations at Stonco may have contributed to the detection of these compounds in monitoring wells MW-24, MW-24D, MW-25 and MW-25D. However, a Site Investigation Report for the Premrefco/Premesco Site prepared by SA in March 2010 confirmed that significant amounts of chlorinated solvents were released from Premrefco/Premesco (Attachment P). Chlorinated solvents were known to have been used at Premrefco/Premesco from 1982 (possibly earlier) up until 2005.

Monitoring wells MW-25 and MW-25D are also located hydraulically downgradient of Stonco. Analysis of ground water samples collected from MW-25 and MW-25D indicate that both TCE and TCA, along with 1,1-DCE were detected. In December 2007, TCE, with an NJDEP GWQS of 1 ppb, was detected at 900 ppb in MW-25 and 400 ppb in MW-25D. In MW-25D, 1,1-DCE, with an NJDEP GWQS of 1 ppb, was detected at a concentration of 98 ppb (Map 10).

Since monitoring wells MW-24, MW-24D, MW-25, and MW-25D are located hydraulically downgradient and close to the Stonco property, it is likely that a release to the ground water occurred at Stonco and contributed to the detection of chlorinated solvents at concentrations exceeding background levels and the NJDEP Ground Water Quality Standards. Level 1 contamination is present.

C. GROUND WATER SAMPLING

Discuss any other ground water sampling that has occurred. For each sampling event, identify the sampler and date of sampling and list the name, address and certification number of the lab which performed the analyses. State who conducted the quality assurance review of the data and summarize any data qualifications.

Between September 8 and October 19, 2010, SA advanced nine borings on the Genlyte – Stonco property to collect soil and ground water samples. The borings were placed to assess the impact of the two AOCs identified at Stonco and an AOC identified at Premrefco/Premesco. The unconsolidated aquifer at Stonco occurs within glacial till sediments and the advancement of the borings was hampered by the presence of zones of refusal that were likely to be large cobbles. The collection of ground water samples was difficult due to the suspension of fine sediments in the ground water. The sediments in the ground water prevented the collection of samples using the check valve and tubing, surge technique. SA discovered that the most effective method to collect ground water samples was to use 2.5-inch steel geoprobe rods and advance them straight down to a depth of 50 feet. Temporary wells consisting of ten feet of 1 inch well screen and 40 feet of PVC riser were placed inside the geoprobe rods prior to pulling them up and exposing the screen to the aquifer. The column of ground water accumulating in the temporary wells was

typically 10 to 30 feet thick. SA determined that temporary well points set at depths less than 30 feet lacked sufficient ground water infiltration to collect a sample.

The following table summarizes the analysis of ground water samples collected from the nine borings during the Genlyte – Stonco SI. The USEPA Laboratory in Edison, NJ performed the analysis of the samples and the quality assurance review. The ground water samples were analyzed under the title 'KCS Lighting Inc #10090014' (Attachment K)

Tabulate sample numbers and the associated Area of Concern or describe the sample location. Identify samples which establish background conditions.

NJDEP, SA - September 2010 Temporary Well Points	
SAMPLE #	ASSOCIATED AOC/SAMPLE LOCATION
SB-1	Background Sample
SB-2	On site, Railroad Spur
SB-3	On site, within Hazardous Waste Storage Area
SB-4	On site, downgradient of Hazardous Waste Storage Area
SB-5	On site, within former UST Area
SB-7	On site, downgradient of Southeastern AOCs
TW-9	On site, downgradient of Premrefco Haz Waste Storage Area
TW-10	On site, downgradient of Premrefco Haz Waste Storage Area
TW-11	On site, cross gradient of Premrefco Haz Waste Storage Area

Tabulate contaminants identified in ground water. Include sample number, contaminant levels and corresponding NJDEP Ground Water Quality Standard (GWQS).

WESTERN SAMPLES PREMREFCO/PREMESCO AOCS				
SAMPLE #/ Date	SCREEN DEPTH (feet bgs)	CONTAMINANT	CONCENTRATION (ug/L)	NJDEP GWQS (ug/l)
SB-7 **	39.5 – 49.5	Chloroform	0.46 J	1
10/19/10		1,1-dichloroethane	0.74	50
		1,1-dichloroethene	**29.1**	**1**
		cis-1,2-dichloroethene	1.8	70
		tetrachloroethene	**1.3**	**1**
		1,1,1-Trichloroethane	3.5	30
		trichloroethene	**260**	**1**
TW-9	39 - 49	**1,1-dichloroethene**	**310**	**1**
9/9/10		cis-1,2-dichloroethene	5.2	70
		tetrachloroethene	**11**	**1**
		1,1,1-trichloroethane	**100**	**30**
		trichloroethene	**670**	**1**
TW-10	35 - 49	1,1-dichloroethane	5	50
9/8/10		**1,1-dichloroethene**	**200**	**1**
		1,1,1-trichloroethane	**79**	**30**
		trichloroethene	**250**	**1**
TW-11	39.5 – 49.5	**1,1,1-trichloroethane**	**240**	**30**
9/9/10		**trichloroethene**	**21**	**1**

TW – Tessler and Weiss (Maps 9 and 10)
** - Analysis by Accutest Laboratories through Philips

Discuss contaminants identified in ground water above background and the ground water quality standards and provide the rationale for site attribution. State whether Level 1 or Level 2 contamination is present.

The results of the subsurface investigation indicated that TCE, TCA and their breakdown products were detected in ground water samples collected from the Stonco site. The ground water samples collected from the western side of Stonco had the prefix of TW. TW stands for Tessler and Weiss which is another name for Premrefco/Premesco (Attachment P). The TW designations were added because the borings were advanced to determine the ground water impacts of AOCs located on the Premrefco/Premesco property. Although the borings are located on the Stonco property, there are no AOCs located on the western side of the Stonco property.

Ground water sample SB-7 was located downgradient of both the western samples and the eastern samples. (Maps 9 and 10) The highest contaminant concentrations detected on the Stonco property were located on the western side. TCE was detected at a concentration of 670 ppb, 1,1-DCE was detected at a concentration of 310, TCA was detected at a concentration of 240 ppm and PCE was detected at a concentration of 11 ppm. Each compound exceeded their NJDEP GWQS and it is likely that Premrefco/Premesco was responsible for the contamination in the 'TW' series ground water samples.

		EASTERN SAMPLES GENLYTE - STONCO AOCS		
SAMPLE #/ Date	SCREEN DEPTH (feet bgs)	CONTAMINANT	CONCENTRATION (ug/L)	NJDEP GWQS (ug/l)
SB-1 9/9/10	35 - 45	No detections	n/a	n/a
SB-2	34 - 49	Acetone	24	6,000
9/8/10		cis-1,2-dichloroethene	12	70
		trichloroethene	**9.7**	1
		tetrachloroethene	**8.7**	1
		Hexanal *	7.2	
		cis-1-Butene, 1-Butoxy	7.5	
		heptane, 2,5-Dimethyl	11	
		nonanal *	7.9	
SB-3	33 - 43	Acetone	10	6,000
9/8/10		cis-1,2-dichloroethene	50	70
		trichloroethene	**13**	1
		tetrachloroethene	**5.1**	1
SB-4	30 - 40	Acetone	41	6,000
9/8/10		cis-1,2-dichloroethene	19	70
		trichloroethene	**14**	1
		tetrachloroethene	**5.9**	1
SB-5 **	39.5 – 49.5	1,1-dichloroethane	0.75 J	50
10/19/10		1,1-dichloroethene	0.45 J	1
		cis-1,2-dichloroethene	15.8	70
		trichloroethene	**27.9**	1
		tetrachloroethene	**19.9**	1

(Map 10) ** - Analysis by Accutest Laboratories through Philips

* **Hexanal**, or **hexanaldehyde**, is an alkyl aldehyde used in the flavor industry to produce fruity flavors. Its scent resembles freshly cut grass.

* **Nonanal**, also called nonanaldehyde or pelargonaldehyde, is an alkyl aldehyde. It has a strong fruity or floral odor and is used in flavors and perfume.

GWQS – Ground Water Quality Standards **Bolded Concentrations** – Compound exceeds NJDEP GWQS

Borings were advanced on the eastern portion of the Genlyte-Stonco site to investigate AOCs identified during SA's historical research. The information available to SA was relevant to the operations of the Stonco facility and limited to an ISRA application and waste manifests obtained from the NJDEP, Division of Hazardous Waste Management. Stonco operated on the site from 1979 to the present (2010) for a total of approximately 30 years. Prior to the operations of Stonco, A.P.W. Products, a paper supply company and the Hazel Bishop Company operated on the site for 25 years. SA could find no information concerning the nature of operations or the materials used at Hazel Bishop. Hazel Bishop was a cosmetics firm but not even generalities could not be made concerning its operations. An old railroad siding is located on the northeastern corner of the site. This would allow the delivery of needed materials in bulk. Stonco did not use the siding so it was used by either or both Hazel Bishop and A.P.W. Products. SA advanced boring SB-2 in the area of the railroad siding and collected a ground water sample. The original intent of the sample was to provide background data related to the AOCs on the eastern side of Stonco. Upon analysis of the sample it was discovered that both hexanal and nonanal were detected in the sample. Both compounds are alkyl aldehydes and both have scent characteristics that would make them desirable as perfume constituents. The presence of these compounds is indicative of the operations of Hazel Bishop. Also detected in ground water sample SB-2 were TCE at a concentration of 9.7 ppb and PCE at a concentration of 8.7 ppb, both exceeding the NJDEP GWQS of 1 ppb. Cis 1,2-dichloroethene (1,2-DCE), a breakdown product of TCE, was detected at a concentration of 12 ppb, below the GWQS of 70 ppb. The presence of 1,2-DCE is indicative of an older release.

Soil boring SB-3 was advanced in the AOC where a 1999 Stonco Map (Map 6) indicated a hazardous waste storage area had been located. The compounds detected in ground water sample SB-3 included TCE at a concentration of 13 ppb, PCE at a concentration of 5.1 ppb and 1,2-DCE at a concentration of 50 ppb. Both TCE and PCE exceeded the GWQS of 1 ppb for each compound but the GWQS for 1,2-DCE was not exceeded. The pathway for the contaminants to enter the ground water is not known, but based upon the proximity to the hazardous waste storage area, it is not unreasonable to speculate that a release of contamination could have occurred during storage or disposal of the hazardous waste. Map 6 indicated that there were no floor drains in the hazardous waste storage area.

Soil boring SB-4 was positioned hydraulically downgradient of an area on Map 6 labeled chemical storage room. In addition, the map shows two floor drains located within the main building that are connected to each other and discharge from the building to the main sanitary sewer. It was hoped that if there was a significant discharge of hazardous material from the floor drains and eventually the sewer piping, it would be picked up in ground water sample SB-4. The analysis of sample SB-4 indicated that TCE was detected at a concentration of 14 ppb, PCE at a concentration of 5.9 ppb and 1,2-DCE at a concentration of 19 ppb. Both TCE and PCE exceeded the GWQS of 1 ppb for each compound but the GWQS for 1,2-DCE was not exceeded. The fact that the compounds detected and their concentrations in SB-4 were similar to those detected in SB-3 seems to indicate a broad area of impact in the shallow ground water.

Boring SB-5 was advanced at the AOC where the former heating oil USTs were located and where a waste water discharge line connecting two floor drains located in the painting area and the paint storage area within the building, connects to the municipal sewer pipe. (Map 6) UST soil sampling conducted by BBL in 1999 to support the 1985 closure of the UST system detected a low concentration of PCE in one of the soil samples. SA followed up with a soil sampling event and also detected a low concentration (0.040 ppm) of PCE in a soil sample. SA supervised the

advancement of a boring by consultants for Philips for both the soil and the ground water sample. At their insistence, Philips provided their own consultant and Geoprobe subcontractor for the boring at this location and location SB-7. The results of the analysis of a ground water sample indicated the detection of TCE at a concentration of 27.9 ppb, PCE at a concentration of 19.9 ppb and 1,2-DCE at a concentration of 15.8 ppb ppb. Both TCE and PCE exceeded the GWQS of 1 ppb for each compound but the GWQS for 1,2-DCE was not exceeded. 1,1-dichloroethene and 1,1-dichloroethane were also detected at concentrations less than 1 ppb.

The confirmation that chlorinated solvents were used at Stonco and the detection of chlorinated solvents in the ground water at the eastern portion of the Stonco facility suggests that Stonco or their predecessors released contamination into the ground water. While detected concentrations of PCE and TCE do not indicate a major source area of the release, the time that has lapsed between the contaminant releases and the contemporary subsurface investigation performed by SA is long enough to allow both biodegradation of the original compounds and migration into the bedrock aquifer.

Based upon the results of ground water sampling in the eastern portions of the Stonco facility, a documented release of PCE and TCE to ground water attributable to the site has been confirmed. Level 1 contamination attributable to Genlyte - Stonco was detected in the unconsolidated aquifer.

D. POTABLE WELL INFORMATION

Distance to nearest potable well: > 1 mile. Information obtained by SA indicates that the closest potable well is more than a mile from the site. This information is based upon a Site Investigation report prepared for the Durex Inc. site located approximately 1,200 feet southwest of the PREMESCO site. (Attachment Q)

Depth of nearest potable well: 130 feet

Identify all public supply wells within 4 miles of the site and tabulate for each aquifer the population utilizing that aquifer for drinking purposes. Include only those populations which utilize wells that have a potential to be impacted, not wells which are actually impacted. Do not list private potable wells individually in this table, but include populations served by these private wells. (Attachment R)

The **South Orange Water Department** operates one well which is located between two and three miles from the site. The well draws from the Brunswick Formation and serves 16,924 residents.

The **Orange City Water Company** operates five wells within four miles of the site, all drawing from glacial sands and gravel of the Quaternary Stratified Drift. According to NJDEP research, the Orange City Water Company operates a total of seven wells and serves 33,000 residents. Approximately 4,714 people are served per well and the five wells within four miles of the site serve 23,570 people.

The **New Jersey American – Raritan Water System** serves a total population of approximately 609,325. Approximately 92% of its delivered water is obtained from surface water while the remaining 8% is supplied from approximately 80 wells drawing from the glacial sands and gravel of the Quaternary Stratified Drift and the Brunswick Formation. The approximate number of people served per well is 609. This water system operates 23 wells located within four miles of the site and they serve a total of 14,007 people. Seven wells draw from the stratified drift and 16 wells draw from the Brunswick Formation.

The **New Jersey American – Short Hills Water System** serves a total population of approximately 217,230. Approximately 92% of its delivered water is obtained from surface water while the remaining 8% is supplied from approximately 23 wells drawing from the Brunswick Formation. The approximate number of people served per well is 756. This water system operates two wells located within two miles of the site serving a total of 1,512 people. The two wells are 100 feet deep and draw water from glacial sands and gravel of the Quaternary Stratified Drift.

Totals

Distance from Site (Miles)	Number of wells	Population Totals	Aquifer
1.0 mile – 2.0 mile	20	**12,474**	*
2.0 mile – 3.0 mile	7	**36,998**	*
3.0 mile – 4.0 mile	4	**6,541**	*

Total 56,013

* Wells in Quaternary Stratified Drift - 14
Wells in the Brunswick Formation - 17
(Attachment M)

State whether ground water is blended with surface water, ground water or both prior to distribution:

Ground water is blended with surface water at the New Jersey American Raritan Water System and the New Jersey American Short Hills Water System (Attachment R)

Discuss private potable well use within 4 miles of the site. Include depth, formation and distance, if available.

There are no potable domestic wells in use in the Boroughs of Kenilworth, Roselle, Hillside and the Township of Maplewood. The Township of Cranford has one domestic well of unknown depth in use and the Township of Springfield maintains records for two wells, also of unknown depth. Union Township has 11 domestic wells ranging in depth between 100 and 400 feet. The closest known potable well is more than 1 mile from the site.

Discuss the site's source of potable water.

The site receives water from the New Jersey American – Raritan Water System. (Attachment R)

Discuss information concerning the population utilizing wells that are known to be contaminated with hazardous substances which are attributable to the site. Also include any other evidence of contaminated drinking water or wells closed due to contamination. State whether Level 1 or Level 2 contamination is present.

There are no known potable wells contaminated with hazardous substances that are attributable to the site.

The subsurface investigation at Genlyte Stonco was conducted to determine if the ground water under the site was impacted by chlorinated solvents. Potential contaminant sources were investigated due to the detection of high concentrations of TCE in the indoor air of the Hickory Manor Condominiums. The area in which the condos were constructed was formerly the site Harvard Industries, a large industrial complex. Harvard Industries through the course of its many years of operation, generated its own wastes and subsequently impacted the subsurface (Attachment S). The use of chlorinated solvents including TCE was documented at Harvard Industries and TCE was the primary contaminant of concern in the ground water at Harvard Industries. After many years of investigating their own environmental problems, the Amerace Corporation Division of Harvard Industries former Elastic Stop Nut of America facility went through ISRA (Case #E88A66) and was eventually granted an NFA from the Department in May 1999. (Attachment S) The basis of the NFA was that the soil and ground water were remediated to the satisfaction of the Department and that Harvard Industries had successfully argued that the ground water contamination at Harvard Industries resulted from an upgradient source.

The Harvard Industries industrial complex was demolished and hauled away. Having received the NFA for the site, the developer Hovnanian at Union Township I, was brought in and the condos, consisting of several multi-unit buildings, were built. In 2010, it was discovered that the indoor air concentration of TCE in the condos exceeded the Rapid Action Levels of the NJDEP Guidance Document. Sub slab vapor recovery units have been installed on the condo units.

Identify any resource uses of ground water within 4 miles of the site (i.e., commercial livestock watering, ingredient in commercial food preparation, supply for commercial aquaculture, supply for major or designated water recreation area, excluding drinking water use, irrigation of commercial food or commercial forage crops, unusable).

There are numerous industrial and irrigation wells in the vicinity of the site. The irrigation wells are operated by several different golf courses. Tuscan Dairy Farms, Inc operates three wells between 2 and 3 miles from the site. There are no commercial wells within 1 mile of the site. (Map 11)

Name	Distance (miles)	Depth (feet)	Formation
Baltusrol Golf Club	3.0	203	Brunswick
Baltusrol Golf Club	3.0	288	Brunswick
Baltusrol Golf Club	3.9	515	Brunswick
Tuscan Dairy Farms Inc.	2.3	300	Brunswick
Tuscan Dairy Farms Inc.	2.3	620	Brunswick
Tuscan Dairy Farms Inc.	1.4	200	Brunswick
Suburban Golf Club	1.7	250	Brunswick
Suburban Golf Club	1.7	500	Brunswick

(Attachment Q)

PART VI: SURFACE WATER ROUTE

A. SURFACE WATER

Does a migration pathway to surface water exist? No. Tributary is 0.2 miles northwest of the site.
Flood plain: Site is not in a flood plain (Map 12)
Size of drainage area for sources at the site in acres:
2-year, 24-hour rainfall in inches: 3.4 (Attachment T)
Does contaminated ground water discharge to surface water? Unknown

Identify known or potentially contaminated surface water bodies. Follow the pathway of the surface water and indicate all adjoining bodies of water along a route of 15 stream miles.

Surface Water Body	Distance from Site (miles)	Flow (cfs)	Usage(s)
Unknown Tributary to Rahway River	0.21	<10	Primary and secondary contact recreation, fishing
Unknown Tributary to Rahway River	1.06	10	recreational fishing
Rahway River	1.29	10 - peak flow of 40	Most areas unsuitable for primary and secondary contact recreation, no swimming, fishing
Surface Water Intake on Rahway River Lake	12.74		Stocked w/ trout

Identify drinking water intakes and fisheries within 15 miles downstream (or upstream in tidal areas) of the site. For each intake or fishery identify the distance from the point of surface water entry, the name of the fishery and/or supplier and population served.

There is a surface water intake approximately 12.74 miles downstream south of the site on or near the Rahway River Lake. It is a public community well operated by the Rahway Water Department and serves 26,000 people with a 5.5 million gallons/day withdrawal rate. Most of the Rahway River is designated as fresh water non-trout but there have been recent efforts to stock the river with trout.

Discuss surface water and/or sediment sampling conducted in relation to the site. Include surface water body, sampling date, sampling agency or company. State whether Level 1 or Level 2 contamination is present for surface water. State whether Level 2 contamination of sediments is present. For each sampling event, list the name, address and certification number of the lab which performed the analyses. State who conducted the quality assurance review of the data and summarize any data qualifications. Discuss visual observations if analytical data are not available (include date of observation).

No sampling was conducted.

Determine if a contaminant on site displays bioaccumulative properties. Identify all bioaccumulative substances that may impact the food chain.

No such contaminants were detected.

Determine if surface water is used for irrigation of commercial food or commercial forage crops, watering of commercial livestock, commercial food preparation or recreation.

No surface water near the Stonco site is used for the irrigation of commercial food or forage crops, watering of commercial livestock or commercial food preparation.

B. SENSITIVE ENVIRONMENTS

Identify all sensitive environments, including wetlands, along the 15 stream-mile pathway from the site:

Since most of the release of contaminants occurred in the subsurface, a surface water pathway was not evaluated. Any releases to the ground surface at the Stonco site were likely to be immediately absorbed into the soil. Map 13 identifies wetlands located within 4 miles of the site.

C. LIKELIHOOD OF RELEASE

Discuss the likelihood of a release of contaminant(s) to surface water, include any additional information concerning the surface water route. Identify contaminants detected and provide a rationale for attributing them to the site. Identify any intakes, fisheries and sensitive environments, listed above, that are or may be actually contaminated by hazardous substances attributed to an observed release from the site.

Since most of the contaminant release was to the subsurface, it is unlikely that the surface water pathway of the site was impacted. Although a surface release was not detected, it is possible that contaminants were spilled to the surface and readily absorbed into the soil.

PART VII: AIR ROUTE

A. POPULATION AND SENSITIVE ENVIRONMENTS

Identify populations residing within 4 miles of the site. (Map 14)

Distance (miles)	Population
on site	12 workers
> 0 - 1/4	646
> 1/4 - 1/2	4,771
> 1/2 - 1	19,923
> 1 - 2	60,639
> 2 - 3	111,253
> 3 - 4	190,901

Identify sensitive environments and wetland acreage within 4 miles of the site.

Distance (miles)	Type of environment
0 - 1/4	Forested wetlands and fresh water marshes
> 1/4 - 1/2	Forested wetlands and fresh water marshes
> 1/2 - 1	Forested wetlands and fresh water marshes
> 1 - 2	Forested wetlands and fresh water marshes
> 2 - 3	Forested wetlands and fresh water marshes
> 3 - 4	Forested wetlands and fresh water marshes

Map 13

B. LIKELIHOOD OF RELEASE

Describe the likelihood of release of hazardous substances to air. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For an observed release, discuss the supporting analytical evidence and its significance relative to background.

Based upon current NJDEP guidance regarding indoor air, it is possible that the site building itself may be impacted by vapor intrusion from the significant concentrations of chlorinated solvents detected in the shallow aquifer beneath the site.

If a release to air is observed or suspected, determine the number of people that reside within the area of air contamination.

A release to air was neither observed nor suspected.

If a release to air is observed, identify any sensitive environments that are located within the area of air contamination.

A release to air was neither observed nor suspected.

PART VIII: REMOVAL ACTION AND/OR IEC CONDITION

Discuss conditions which constitute an Immediate Environmental Concern (IEC) or warrant EPA Removal Action consideration (improper storage of incompatible/reactive materials, leaking or unsound containers, inadequate site security, subsurface gas threat).

There were no IEC conditions found during the Site Investigation.

PART IX: CONCLUSIONS AND RECOMMENDATIONS

KCS Lighting Inc. Stonco Lighting Division operated on its property from 1979 to 2011. Their SIC codes of 3645 and 3646 indicate that they are involved in the production of residential electric lighting fixtures as well as commercial, industrial and institutional electric lighting fixtures.

Stonco assembled lighting fixtures and characterized the work as light assembly with drilling and minor tapping. Stonco does not fabricate parts, but a portion of their current operations involves the finishing of premade cast lighting housing. The housing boxes are currently finished in a closed system where they are powder coated using dry electrostatic deposition with baking enamel. Some items requiring minor machining or custom coating are sent to machining areas or to the wet paint room. Light housings and components are assembled on lines and stored on pallets prior to shipping.

Prior to the dry finishing process, Stonco operated a wet paint line and generated F001 waste which is waste PCE, TCE, TCA and/or methylene chloride used in large-scale industrial degreasing operations. Between 1982 and 1985, Stonco manifested 2,860 gallons of F001 waste. The precise use of the chlorinated solvent is not known, but it was likely to have involved pre-painting degreasing and the cleaning of paint equipment. It is not known how the wastes were disposed between 1979 and 1982.

SA researched the NJDEP Right to Know data base and discovered that Stonco used TCE from 1992 to 1995 and TCA from 1996 to 1997. The solvents were used in the machine shop and approximately 10 pounds were present on a daily basis. It is likely that the solvents were used in a closed parts washing station. Right to Know data prior to 1992 was not available.

Stonco was investigated because of chlorinated solvent contamination discovered in the ground water hydraulically downgradient of their facility. Located downgradient was the former Amerace Corporation Division of Harvard Industries, now the Hickory Manor Condominiums. During a period spanning the 1960's to the late 1990's, ground water contaminated by chlorinated solvents was discovered at Harvard Industries. Harvard Industries, based on its downgradient position relative to another manufacturer called Red Devil, contended that their ground water contamination resulted from operations at Red Devil in spite of documented use of chlorinated solvents at Harvard Industries. Red Devil confirmed releases of TCE from their own operations. After installing more than 30 monitoring wells to investigate their own ground water contamination, Red Devil discovered significant TCE contamination in a hydraulically upgradient monitoring well relative to their area of release and located near the Premrefco/Premesco Property. In December 2007, consultants for Red Devil installed two nested monitoring wells, MW-23 and MW23D in the northern right-of-way of Vauxhall Road, located several feet from the Premrefco/Premesco property line. Upon analysis of a ground water sample collected from monitoring well MW-23, the shallow well, TCE was detected at a concentration of 900 ppb, exceeding the NJDEP Ground Water Quality Standard of 1 ppb. Monitoring wells MW-24 and 24D were installed in the right of way of Vauxhall Road on the southwest corner of the Stonco property. Consultants for Red Devil constructed a ground water contour map that included MW-23 and MW-24 and determined that both the Premrefco/Premesco property and Stonco property were located hydraulically upgradient of Red Devil and the Harvard Industries facility. The consultants concluded that Premrefco/Premesco was likely responsible for ground water contamination on both the Red Devil and the Harvard Industries Property. Stonco was not named by the Red Devil consultants as a possible source of contamination at the Red Devil site, but by virtue of their position hydraulically upgradient of Harvard Industries (Hickory Manor Condominiums) as determined by the ground water flow maps, contamination derived from operations at Stonco would likely impact the Condominiums. Having received a No Further Action designation in relation to their contamination issues, Harvard Industries was demolished and the Hickory Manor Condominiums were built on the cleared land in the early 2000's.

Due to a change of ownership in 1998, The Genlyte Group, Inc., the owners of Stonco, submitted an ISRA General Information Notice to the NJDEP, Division of Hazardous Waste Management. A Preliminary Assessment Report was prepared on behalf of Stonco by Blasland, Bouck and Lee, Inc in October, 1999. BBL investigated each potential area of concern at the Stonco facility and decided that only one needed further investigation.

BBL identified an area where two heating oil USTs had been closed in 1985. Because there was no information concerning the condition of the soils after the tank closures, BBL dug two test pits in the approximate locations of the former USTs to document soil conditions. Soil samples were collected from the two test pits and the results of the analysis indicated that in soil sample A-4 in the test pit for the former 10,000 gallon UST, total petroleum hydrocarbons were detected at a concentration of 21,500 ppm exceeding the NJDEP SCC of 10,000 ppm. During the excavation of the test pits, BBL segregated soils that, based on darkened colors and elevated concentrations from screening instruments, appeared to be contaminated. BBL estimated that one-half cubic yards of impacted soil was removed from the test pit and properly disposed. Because the TPH concentration of soil samples collected adjacent to sample A-4 were below the SCC, BBL argued that contamination had been horizontally delineated and no further actions were necessary. In soil sample A-3, PCE was detected at a concentration of 0.170 ppm, below the SCC of 1.0 ppm. It is not known how the PCE got to the subsurface at a depth that can only be speculated upon because BBL did not provide soil depths for any of their confirmatory soil samples. One possibility is the fact that the discharge wastewater pipe that drains two floor drains in the paint rooms connects to the main sewer pipe within several feet of the former UST areas. If PCE was disposed through the waste water discharge pipe and the pipe had leaked, then it was possible that PCE could have entered the soil and consequently the ground water.

NJDEP responded to BBL's request for an NFA by requiring them to vertically delineate the TPH soil contamination detected in sample A-4. BBL advanced a boring in the vicinity of former sample A-4. Soil samples for TPH and VOCs were collected at the intervals 10.0 to 10.5 feet bgs and 12.0 to 12.5 feet bgs. Table 2 in the September 1, 2000 summary letter from BBL summarized the photoionization detector readings, presented a log of the soils and stated that soil samples for TPH and VOCs were collected. Only the results for the sample collected at 12.0 to 12.5 feet bgs was summarized in the report and the analytical result of that sample indicated that there were no VOCs detected. BBL compiled the additional data and after a review by the NJDEP, was granted an NFA.

Based upon their own research, NJDEP SA concluded there were two AOCs that required investigation. The first AOC was the former UST excavations where SA sought to confirm the detection of PCE in the soil by collecting ground water samples in the vicinity of the USTs and the process discharge pipe to the sewer. The second AOC was discovered when SA located a map of the Stonco building and noticed that two adjacent areas identified on the map were labeled 'chemical storage area' and 'hazardous waste storage area'. Because the two areas on the map are located adjacent to each other, SA treated them as one AOC. Both of these AOCs are located on the eastern portion of the plant and the investigation of these AOCs was independent of the subsurface investigation conducted on the western portion of the Stonco plant.

SA confirmed the presence of PCE in a soil sample collected in the area of the UST/process pipe AOC and in a soil sample collected at the AOC located near the former hazardous waste storage area. Both detections were well below the NJDEP SCC.

SA collected ground water samples by advancing a Geoprobe boring to a depth of 50 feet bgs. This depth was close to the unconsolidated aquifer/bedrock interface. Attempts were made to collect ground water samples at depths less than 30 feet bgs, but adequate ground water occurred only at deeper depths. Four soil borings were advanced on the eastern portion of the Stonco facility to assess the two AOCs. Both PCE and TCE were detected in all four samples at concentrations ranging between 9.7 and 27.9 ppb for TCE and 8.7 and 19.9 ppb for PCE. The

higher range of the detections occurred at the former UST area but overall, the concentrations of TCE and PCE were consistent throughout the four ground water samples on the eastern side of Stonco. The presence of breakdown products 1,2-DCE, 1,1-DCE and 1,1-DCA in several of the ground water samples suggest that the release is old. SA was unable to assess the ground water in the bedrock aquifer which may also be adversely impacted.

SA also assessed the ground water on the western portion of the Stonco facility in spite of the lack of Stonco AOCs located on the western side. Five borings were advanced to assess ground water including boring SB-1, the upgradient and background sample. There were no target VOCs detected in either the soil or ground water sample collected from the background location. Three borings were advanced on the Stonco property but adjacent to the Premrefco/Premesco facility. The three borings may be identified because they have the prefix 'TW' which stands for Tessler and Weiss, another permutation of Premrefco/Premesco. The TW borings were advanced primarily to assess the impact of the Premrefco/Premesco operations to the ground water beneath the Stonco property. Analysis of the ground water samples indicate that 1,1-DCE was detected in a downgradient sample (TW-9) at a concentration of 310 ppb, PCE was detected in the same sample at 11ppb, TCA was detected in a range between 79 to 240 ppb in all three samples and TCE was detected in a range of concentrations between 21 and 670 ppb also in all three samples with the highest concentration being the farthest downgradient. SA's Site Investigation of Premrefco/Premesco documented the use of chlorinated solvents in their operations up until the early 1990's. Research also determined that the Premrefco/Premesco's hazardous waste storage area was located hydraulically upgradient of the area of contaminated ground water discovered on the Stonco property.

Boring SB-7 was advanced in an area hydraulically downgradient of both the AOCs on the Premrefco/Premesco property and the AOCs on the Stonco property. Ground water sample analysis indicates that TCE was detected at a concentration of 260 ppb, PCE was detected at a concentration of 1.3 ppb and 1,1-DCE was detected at a concentration of 29.1 ppb. All three compounds exceeded their respective GWQS, and it is likely that most of the contamination detected in SB-7 originated from Premrefco/Premesco. However, the same compounds were detected on the eastern side of Stonco and available ground water flow direction information suggests that the Stonco AOCs are also located hydraulically upgradient of SB-7. The potential for the migration of chlorinated solvents resulting from Stonco operations toward the Hickory Manor Condominiums cannot be ignored. The evaluation of the bedrock ground water will also help to determine the contribution to regional ground water contamination that Stonco has made.

A row of homes are located within 200 feet of the eastern side of the Stonco facility where the AOCs are located. Because the homes are located hydraulically crossgradient to downgradient of the Stonco AOCs, the homes have the potential to be impacted by Vapor Intrusion (VI) (Map 15)

Indoor air samples should be collected inside the Stonco facility to ensure that indoor air contaminant concentrations are within NJDEP guidelines. Specifically, the Stonco offices, located in the southernmost portion of the building, are located 230 feet hydraulically downgradient of boring TW-10 where TCE was detected in the ground water at a concentration of 250 ppb. In addition, the offices are located 75 feet and hydraulically cross-gradient of boring SB-7 where TCE was detected in the ground water at a concentration of 260 ppb. The detection of TCE at a concentration of 250 ppb in a ground water sample located upgradient of the Stonco offices is a cause for concern of indoor air quality, especially since the Hickory Manor Condominiums, located

480 feet hydraulically downgradient of boring TW-11, were adversely impacted by contaminated indoor air.

Due to its documented use of chlorinated solvents, and the detection of PCE and TCE in the shallow ground water beneath its site related to two areas of concern, a release attributed to Stonco has been documented. An Expanded Site Investigation is necessary to establish the impact of the releases at Stonco, if any, on the Hickory Manor Condominiums.

Philips Electronics of North America, as owners of Genlyte-Stonco should comply with N.J.A.C. 7:26E 4.4, Remedial Investigation of Ground Water. A soil gas survey should be conducted in the offices of the Stonco facility and in the homes located east of the Stonco AOCs.

The HRS score for this site is greater than 28.5; therefore, the site is assigned a higher priority for further action under CERCLA.

Submitted by: Steven Hoke
Title: Senior Geologist
NJDEP, Bureau of Environmental Measurements and Site Assessment
Date: 04/15/11

PART X: POTENTIALLY RESPONSIBLE PARTIES

NAME	OWNER/OPERATOR/ KNOWN DISCHARGER	CURRENT ADDRESS
Dianne Adamowitz-Murphy, P.E., CHMM Environmental Project Coordinator	Owner Representative	Philips Lighting Company 200 Franklin Square Drive Somerset, New Jersey 08873

ATTACHMENT B

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-1

Project Stepco Lightings, 2345 Vauxhall Rd., Union NJ

File No. 37815-105

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-1
File No. 37815-105
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60	20.0 25.0			SM	Similar to above, previous sample, moist. PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
25		S6 60	25.0 30.0			SM	Similar to previous sample, moist at the bottom. Between 25-27' the sample was wet, it was uncertain if the water was natural or that used for drilling operations. PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
30		S7 60	30.0 35.0			SM	Similar to previous sample, very tight formation. PID = 0 ppm										
							PID = 40 ppm										
							PID = 25 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
35					35.0		Bottom of Exploation at 35.0 ft.										
							Material used: Sand - 3 bags @ 100 lb/bag Cement - 1 bag @ 94 lb./bag Bentonite - 1 bag @ 50 lb./bag. for seal & grout										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. MW-1

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-2

Project Stonco Lightings, 2345 Vauxhall Rd., Union NJ
Client Stonco/Thomas Genlyte/Philips
Contractor Aquifer Drilling and Testing

File No. 37815-105
Sheet No. 1 of 2
Start July 19, 2011
Finish July 19, 2011
Driller J. McGill/M. Meyers
H&A Rep. B. Issac
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	Steel	--	Rig Make & Model: AMS Compact Roto Sonic 17-C
Inside Diameter (in.)	5"	3"	--	Bit Type:
Hammer Weight (lb)	--	140	-	Drill Mud:
Hammer Fall (in.)	--	30	-	Casing:
				Hoist/Hammer: /
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48	0.0 5.0			SM	0.5-2': Olive brown, silty SAND with coarse to fine gravel and crushed stone, dry to moist, unidentified/organic odor. -ASPHALT-	5	5	15	20	25	30				
					2.0		2-5': Red brown, silty SAND with coarse to fine gravel, well-bonded, dry, no odor. PID = 0 ppm										
							PID = 0 ppm										
							PID = 15 ppm										
5		S2 60	5.0 10.0			SM	PID = 0 ppm						35				
							PID = 0 ppm										
							5-7': Red brown, silty SAND with cobbles and crushed stone pieces, no odor, moist to wet.										
					7.0		PID = 0 ppm	5	10	5	25	20	35				
							PID = 0 ppm										
							7-10': Red brown, silty sAND with coarse to fine gravel and trace cobbles, mps 3", no odor, dry.										
							PID = 0 ppm										
10		S3 60	10.0 15.0			SM	PID = 0 ppm	10	10	10	10	20	40				
							Red brown, silty SAND with fine to coarse gravel, mps 3", no odor, moist to dry, wet at top to 12. ft. depth.										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
15		S4 60	15.0 20.0			SM	PID = 0 ppm	10	10	10	10	20	40				
							Similar to above, moist to 18.0 ft., dry to 20.0 ft., no odor.										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
20																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 40.0
Rock Cored (ft) --
Samples 8S

Boring No. MW-2

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 2010_1029_REVISED LIBRARY.GLB HA-TB+CORE+WELL-07-1.GDT G:\37815 PHILIPS GENLYTE STONCO\105\2011_0725_HANY_STONCO LIGHTING TESTBORINGS.GPJ Jul 28, 11

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-2
File No. 37815-105
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60	20.0 25.0			GM	Red brown, poorly-graded GRAVEL with coarse to fine sand and silt, *no odor, dry, loose structure.* PID = 0 ppm	20	30	10	10	15	15				
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
25		S6 18	25.0 30.0			GP	Gravel and cobble, sampler tip blocked by a piece of cobble. Tip of sampler was dry. PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
30		S7 60	30.0 35.0			SM	Red brown, silty SAND with fine gravel, no odor, wet, mps 2", visible water when tapped. PID = 0 ppm	5	10	10	10	30	40				
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
35		S8 48	35.0 40.0			SM	Similar to above, except more water, visible in the top 2 ft., a 6" dry zone @ 38.0 ft. and wet zone below 39.0 ft. PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
40					40.0		Bottom of Exploration at 40.0 ft.										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. MW-2

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-3

Project Stonco Lightings, 2345 Vauxhall Rd., Union NJ
Client Stonco/Thomas Genlyte/Philips
Contractor Aquifer Drilling and Testing

File No. 37815-105
Sheet No. 1 of 2
Start July 20, 2011
Finish July 20, 2011
Driller J. McGill/M. Meyers
H&A Rep. B. Issac
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	Steel	--	Rig Make & Model: AMS Compact Roto Sonic 17-C
Inside Diameter (in.)	5"	3"	--	Bit Type:
Hammer Weight (lb)	--	140	-	Drill Mud:
Hammer Fall (in.)	--	30	-	Casing:
				Hoist/Hammer: /
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 54	0.0 5.0			SM	Grass lawn on the ground surface. 1-2': Red brown, silty SAND with coarse to fine gravel, dry, no odor. -FILL-										
					2.0		PID = 0.2 ppm										
					3.0	SM/ML	PID = 0.1 ppm 2'-3': Light brown, silty SAND with fine gravel, concrete/cement fragments, dry, no odor.			5	15	30	50				
							PID = 0 ppm 3'-5': Red brown, silty SAND to sandy SILT, wet, no odor.										
5		S2 60	5.0 10.0			SM	PID = 0 ppm	5	5	5	15	30	40				
							PID = 0 ppm 5-10': Red brown, silty SAND with coarse to fine gravel, trace cobble, dry to moist, no odor.										
							PID = 0 ppm										
							PID = 0 ppm										
							PID = 0 ppm										
10		S3 60	10.0 15.0			SM	PID = 0 ppm	5	10	15	20	20	30				
							PID = 0.5 ppm 10'-15': Red brown, silty SAND with coarse to fine gravel, dry, no odor, well bonded.										
							PID = 0.3 ppm										
15		S4 48	15.0 20.0			SM	15'-16': Similar to above. PID = 0.1 ppm										
					16.0	GM	16-20': Red brown, silty GRAVEL with coarse to fine sand, loosly bonded, dry, no odor.	20	30	10	10	15	15				
							PID = 0.3 ppm										
							PID = 0.2 ppm										
							PID = 0.3 ppm										
20							PID = 0.0 ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 40.0
Rock Cored (ft) --
Samples 8S

Boring No. MW-3

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-3
File No. 37815-105
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 30	20.0 25.0			GP-GM	Red brown, coarse GRAVEL and cobbles with silty sand, no odor, dry. PID = 0.1 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.1 ppm PID = 0.0 ppm	50	20		20		10				
25		S6 24	25.0 30.0			GP	Red brown, poorly-graded GRAVEL with sand, no odor, wet, loose structure, a 6" zone of fine to medium gravel with top 1 ft. of recover. PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.2 ppm PID = 0.0 ppm	40	50	10	10	5	5				
30		S7 20	30.0 35.0		30.0	SM	Red brown, silty SAND with fine gravel, wet, no odor, saturated. A piece of cobble obstructed the core tip. PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.3 ppm		10	15	30	20	25				
35		S8 40	35.0 40.0			SM	Red brown, silty sAND with coarse to fine gravel, no odor, wet to 38.0 ft., dry to moist below 38.0 ft. PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.1 ppm	5	10	10	10	30	35				
40					40.0		Bottom of Exploration at 40.0 ft. PID = 5.0 ppm										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. MW-3

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-6

Project	Stonco Lightings, 2345 Vauxhall Rd., Union NJ
Client	Stonco/Thomas Genlyte/Philips
Contractor	Aquifer Drilling and Testing

File No.	37815-105
Sheet No.	1 of 2
Start	July 18, 2011
Finish	July 18, 2011
Driller	J. McGill/M. Meyers
H&A Rep.	B. Issac
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	Steel	--	Rig Make & Model: AMS Compact Roto Sonic 17-C
Inside Diameter (in.)	5"	3"	--	Bit Type:
Hammer Weight (lb)	--	140	-	Drill Mud:
Hammer Fall (in.)	--	30	-	Casing:
				Hoist/Hammer: /
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48	0.0 5.0		0.5	SM	4-in. thick asphalt overlying gravel sub-base. -ASPHALT- PID = 0 ppm		30		40		30				
							Brown, silty SAND with fine to medcium crushed stone.										
						ML	Olive brown to yellow brown, clayey silt to silt and fine sand, no odor, moist. -FILL- PID = 0 ppm			5	5	30	60				
					4.0	SM	PID = 0 ppm		10		65		25				
5		S2 54	5.0 10.0			SM	Red brown, silty SAND with fine to medium gravel, dry, well bonded, no odor. -FILL- PID = 0 ppm	10	20		45		25				
							Red brown, silty SAND with fine to coarse gravel, mps 3", no odor, dry to moist, likely glacial deposits. PID = 0.1 ppm										
							PID = 0.2 ppm										
							PID = 0.1 ppm										
10		S3 60	10.0 15.0			SM	PID = 0.1 ppm										
							PID = 0.2 ppm										
							Similar to previous, moist to dry, high PID readings at 12 -15 ft. depth. PID = 4.2 ppm										
							PID = 8 ppm										
							PID = 50 ppm										
15		S4 60	15.0 20.0			SM	Similar to previous, despite high PID reading the sample was not odorous. PID = 4 ppm	15	20		45		20				
							PID = 5 ppm										
							PID = 25 ppm										
							PID = 250 ppm										
							PID = 90 ppm										
20																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	40.0
Rock Cored (ft)	--
Samples	8S

Boring No. MW-6

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 2010_1029_REVISED LIBRARY.GLB HA-TB+CORE+WELL-07-1.GDT G:\13\815 PHILIPS GENLYTE STONCO\10502011_0725_HANY_STONCO LIGHTING TESTBORINGS.GPJ Jul 28, 11

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-6
File No. 37815-105
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60	20.0 25.0			SM-GM	Red brown, silty SAND with gravel and cobbles, mps 5 in., no odor, dry, no structure, high. PID = 2.5 ppm PID = 0.5 ppm PID = 0.8 ppm PID = 1.0 ppm		25			30	15				
25		S6 60	25.0 30.0			SM-GM	Similar to above, except reported wet at the tip by the driller. PID = 0.0 ppm PID = 0.5 ppm PID = 1.5 ppm PID = 0.5 ppm PID = 0.5 ppm										
30		S7 6	30.0 35.0			GP	Cobbles and coarse to fine gravel. Driller reported loosing water in the interval and very poor recovery. PID = 0.0 ppm										
35		S8 60	35.0 40.0			SM	Red brown, silty SAND and gravel and cobble, wet, no odor. PID = 0.5 ppm PID = 0.5 ppm PID = 0.5 ppm Red bray, silty/clayey SAND, dry , no odor. PID = 0.5 ppm 38.5-40.0': Red brown, silty SAND (SM), coarse to fine gravel, no odor, moist to wet. PID = 0.5 ppm										
40					40.0		Bottom of Exploration at 40.0 ft. Material Used: Filter Sand - 3 bags @ 100 lb/bag Cement - 2 bags @ 94 12/bag Bentonite - 1 bag										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. MW-6

H&A-TEST BORING-07-1 2010_1029_REVISED LIBRARY.GLB HA-TB+CORE+WELL-07-1.GDT G:\37815 PHILIPS GENLYTE STONCO\10512011_0725_HANY_STONCO LIGHTING TESTBORINGS.GPJ Jul 28, 11

HALEY & ALDRICH

TEST BORING REPORT DRAFT

Boring No. MW-7

Project Stonco Lightings, 2345 Vauxhall Rd., Union NJ
Client Stonco/Thomas Genlyte/Philips
Contractor Aquifer Drilling and Testing

File No. 37815-105
Sheet No. 1 of 2
Start July 20, 2011
Finish July 20, 2011
Driller J. McGill/M. Meyers
H&A Rep. B. Issac
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	Steel	--	Rig Make & Model: AMS Compact Roto Sonic 17-C
Inside Diameter (in.)	5"	3"	--	Bit Type:
Hammer Weight (lb)	--	140	-	Drill Mud:
Hammer Fall (in.)	--	30	-	Casing:
				Hoist/Hammer: /
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Sand % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 30	0.0 5.0		0.5		6" thick Asphalt layer.										
					1.5		0.5'-1.5': Dark brown, silty SAND with crushed stone/fragment and gravel, likely sub-base coarse.										
						SM	PID = 2.5 ppm		10	10	15	30	35				
							2'-5': Red brown, silty SAND with fine to medium gravel, dry, no odor.										
							PID = 1.5 ppm										
							PID = 5.0 ppm										
5		S2 54	5.0 10.0			SM	PID = 8.0 ppm		10	10	15	30	35				
							Red brown, silty SAND with fine to medium gravel, dry, no odor, mps 1".										
							PID = 1.0 ppm										
							PID = 1.0 ppm										
							PID = 1.0 ppm										
							PID = 1.5 ppm										
10		S3 60	10.0 15.0			SM	PID = 15 ppm										
							10'-12': Similar to above.										
							PID = 0.5 ppm										
							PID = 1.0 ppm										
							PID = 0.5 ppm										
							PID = 0.5 ppm										
							PID = 8 ppm										
15		S4 54	15.0 20.0			SP-SM	12'-15': Red brown, silty SAND to poorly graded SAND with silt, and coarse to fine gravel, dry, no odor.	5	10	10	20	45	10				
							PID = 0.5 ppm										
							PID = 0.5 ppm										
							PID = 0.5 ppm										
							PID = 1.0 ppm										
20							PID = 1.5 ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 40.0
Rock Cored (ft) --
Samples 8S

Boring No. MW-7

Field Tests: **Dilatancy:** R - Rapid S - Slow N - None **Toughness:** L - Low M - Medium H - High **Plasticity:** N - Nonplastic L - Low M - Medium H - High **Dry Strength:** N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

DRAFT

Boring No. MW-7
File No. 37815-105
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 48	20.0 25.0			SM	Similar to previous, except wet at the tip. PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 1.0 ppm										
25		S6 36	25.0 30.0		25.0	GM	25'-27': Red brown, silty SAND ti silty GRAVEL, no odor, wet. PID = 0.5 ppm PID = 0.0 ppm	10	30	10	10	20	20				
					27.0	SM	27'-30': Red brown, silty SAND with fine gravel, no odor dry. PID = 0.0 ppm PID = 0.5 ppm PID = 0.5 ppm		20	10	15	30	25				
30		S7 18	30.0 35.0			GP	Red brown, poorly graded GRAVEL with silty sand, no odor, wet. PID = 0.0 ppm PID = 0.0 ppm	20	40	10	10	15	5				
35		S8 60	35.0 40.0		35.0	SM	Red brown, silty SAND, no odor, wet, trace fine gravel. PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm PID = 0.0 ppm		5	10	15	40	30				
40							Bottom of Exploration at 40.0 ft.										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. MW-7

ATTACHMENT C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:KCS Lighting - 1108014

Project Number: 1108014

Project Narrative:

The National Environmental Laboratory Accreditation Conference (NELAC) is a voluntary environmental laboratory accreditation association of State and Federal agencies. NELAC established and promoted a national accreditation program that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAC accredited. The Laboratory tests that are accredited have met all the requirements established under the NELAC Standards.

Condition Comments

None

Comment(s):

None

Data Qualifier(s):

U- The analyte was not detected at or above the Reporting Limit.
J- The identification of the analyte is acceptable; the reported value is an estimate.
K- The identification of the analyte is acceptable; the reported value may be biased high.
L- The identification of the analyte is acceptable; the reported value may be biased low.
NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limits for each analyte requested.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:KCS Lighting - 1108014

Project Number: 1108014

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
	1108014-01	Aqueous	08/03/2011 11:15	08/04/2011 15:00
	1108014-02	Aqueous	08/03/2011 13:40	08/04/2011 15:00
	1108014-03	Aqueous	08/03/2011 12:55	08/04/2011 15:00
	1108014-04	Aqueous	08/03/2011 11:55	08/04/2011 15:00
	1108014-05	Aqueous	08/03/2011 10:15	08/04/2011 15:00
	1108014-06	Aqueous	08/03/2011 11:21	08/04/2011 15:00
	1108014-07	Aqueous	08/03/2011 11:50	08/04/2011 15:00
	1108014-08	Aqueous	08/03/2011 12:40	08/04/2011 15:00
	1108014-09	Aqueous	08/03/2011 11:23	08/04/2011 15:00
	1108014-10	Aqueous	08/03/2011 14:12	08/04/2011 15:00
	1108014-11	Aqueous	08/03/2011 14:04	08/04/2011 15:00
	1108014-12	Aqueous	08/03/2011 15:34	08/04/2011 15:00
	1108014-13	Aqueous	08/03/2011 15:27	08/04/2011 15:00
	1108014-14	Aqueous	08/03/2011 00:01	08/04/2011 15:00

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:KCS Lighting - 1108014

Project Number: 1108014

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
E-VOA SOM 1.2	SOM 1.2 / SOP C-89		Aqueous

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-1 **Sample ID: 1108014-01**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	---	U	5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	12	J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-1 **Sample ID: 1108014-01**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-2 **Sample ID: 1108014-02**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Propene	50	NJ		ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-2 **Sample ID: 1108014-02**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	---	U	5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	43		5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-2 **Sample ID: 1108014-02**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	25		5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-3 **Sample ID: 1108014-03**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-3 **Sample ID: 1108014-03**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	---	U	5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	5.0		5.0	ug/L	B108060
Acetone	11	J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-3 **Sample ID: 1108014-03**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-4 **Sample ID: 1108014-04**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-4 **Sample ID: 1108014-04**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	---	U	5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	50		5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-4 **Sample ID: 1108014-04**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-5 **Sample ID: 1108014-05**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-5 **Sample ID: 1108014-05**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,1-Dichloroethene	190		5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	40		5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	7.0		5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-5 **Sample ID: 1108014-05**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-5 **Sample ID: 1108014-05RE1**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Trichloroethene	300		50	ug/L	B108068

Field ID: MW-5D **Sample ID: 1108014-06**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-5D **Sample ID: 1108014-06**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	13		5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	7.1		5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	59		5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-5D **Sample ID: 1108014-06**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-6 **Sample ID: 1108014-07**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-6 **Sample ID: 1108014-07**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,1-Dichloroethene	---	U	5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-6 **Sample ID: 1108014-07**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-7 **Sample ID: 1108014-08**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-7 **Sample ID: 1108014-08**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-7 **Sample ID: 1108014-08**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-8 **Sample ID: 1108014-09**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	14		5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-8 **Sample ID: 1108014-09**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	7.1		5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	55		5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-8 **Sample ID: 1108014-09**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-23 **Sample ID: 1108014-10**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	UJ	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	38		5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	UJ	10	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-23 **Sample ID: 1108014-10**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-23 **Sample ID: 1108014-10**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-23 **Sample ID: 1108014-10RE1**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Trichloroethene	330		50	ug/L	B108068

Field ID: MW-24 **Sample ID: 1108014-11**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	62		5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-24 **Sample ID: 1108014-11**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	31		5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-24 **Sample ID: 1108014-11**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-24 **Sample ID: 1108014-11RE1**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Trichloroethene	270		50	ug/L	B108068

Field ID: MW-25 **Sample ID: 1108014-12**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	UJ	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-25 **Sample ID: 1108014-12**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	29		5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	19		5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: MW-25 **Sample ID: 1108014-12**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: MW-25 **Sample ID: 1108014-12RE1**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Trichloroethene	210		25	ug/L	B108068

Field ID: FB **Sample ID: 1108014-13**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: FB **Sample ID: 1108014-13**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Bromomethane	---	U J	5.0	ug/L	B108060
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	---	U	5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: FB **Sample ID: 1108014-13**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

Field ID: TB **Sample ID: 1108014-14**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Dichlorodifluoromethane	---	U	5.0	ug/L	B108060
Chloromethane	---	U	5.0	ug/L	B108060
Vinyl Chloride	---	U	5.0	ug/L	B108060
Bromomethane	---	U J	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: TB **Sample ID: 1108014-14**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Chloroethane	---	U	5.0	ug/L	B108060
Trichlorofluoromethane	---	U	5.0	ug/L	B108060
1,1-Dichloroethene	---	U	5.0	ug/L	B108060
1,1,2-Trichloro-1,2,2-Trifluoroethane	---	U	5.0	ug/L	B108060
Carbon Disulfide	---	U	5.0	ug/L	B108060
Acetone	---	U J	10	ug/L	B108060
Methyl Acetate	---	U	5.0	ug/L	B108060
Methylene Chloride	---	U	5.0	ug/L	B108060
trans-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
Methyl tert-Butyl Ether	---	U	5.0	ug/L	B108060
1,1-Dichloroethane	---	U	5.0	ug/L	B108060
cis-1,2-Dichloroethene	---	U	5.0	ug/L	B108060
2-Butanone	---	U J	10	ug/L	B108060
Bromochloromethane	---	U	5.0	ug/L	B108060
Chloroform	---	U	5.0	ug/L	B108060
1,1,1-Trichloroethane	---	U	5.0	ug/L	B108060
Cyclohexane	---	U	5.0	ug/L	B108060
Carbon Tetrachloride	---	U	5.0	ug/L	B108060
Benzene	---	U	5.0	ug/L	B108060
1,2-Dichloroethane	---	U	5.0	ug/L	B108060
Trichloroethene	---	U	5.0	ug/L	B108060
1,2-Dichloropropane	---	U	5.0	ug/L	B108060
Bromodichloromethane	---	U	5.0	ug/L	B108060
cis-1,3-Dichloropropene	---	U	5.0	ug/L	B108060
4-Methyl-2-Pentanone	---	U	10	ug/L	B108060
Toluene	---	U	5.0	ug/L	B108060
trans-1,3-Dichloropropene	---	U J	5.0	ug/L	B108060
1,1,2-Trichloroethane	---	U	5.0	ug/L	B108060

Project:KCS Lighting - 1108014

Project Number: 1108014

Field ID: TB **Sample ID: 1108014-14**

Analyte	Result	Qualifier	Reporting Limit	Units	Batch
Tetrachloroethene	---	U	5.0	ug/L	B108060
Methylcyclohexane	---	U	5.0	ug/L	B108060
Dibromochloromethane	---	U	5.0	ug/L	B108060
1,2-Dibromoethane	---	U	5.0	ug/L	B108060
2-Hexanone	---	U L	10	ug/L	B108060
Chlorobenzene	---	U	5.0	ug/L	B108060
Ethylbenzene	---	U	5.0	ug/L	B108060
m/p-Xylene	---	U	5.0	ug/L	B108060
o-Xylene	---	U	5.0	ug/L	B108060
Styrene	---	U	5.0	ug/L	B108060
Bromoform	---	U	5.0	ug/L	B108060
Isopropylbenzene	---	U	5.0	ug/L	B108060
1,1,2,2-Tetrachloroethane	---	U	5.0	ug/L	B108060
1,3-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,4-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dichlorobenzene	---	U	5.0	ug/L	B108060
1,2-Dibromo-3-Chloropropane	---	U	5.0	ug/L	B108060
1,2,4-Trichlorobenzene	---	U	5.0	ug/L	B108060
1,2,3-Trichlorobenzene	---	U	5.0	ug/L	B108060

ATTACHMENT D

NJDEP ENVIRONMENTAL LABORATORY

FINAL REPORT

Vauxhall Rd. & Swanstrom Pl.

UNION TOWNSHIP, UNION COUNTY, NJ

GROUND WATER SAMPLES

SAMPLES RECEIVED: 4 AUGUST 2011

REPORT ISSUED: 23 AUGUST 2011

JOBCODE: A605590P

ANALYZED BY

KENNETH GLASSER
MOBILE LABORATORY PROGRAM MANAGER

1.0 INTRODUCTION

On 4 August 2011, aqueous samples collected from the Vauxhall Road and Swanstrom Place ground water contamination site, Union Township, Union County, were delivered to the NJDEP Environmental Laboratory for analysis. Samples were analyzed for EPA 524 Volatile Organic Compounds by Purge and Trap Capillary Column Gas Chromatography Mass Spectrometry (GC/MS). Results are presented in the Analytical Results Reports, attached.

2.0 PROCEDURES

2.1 Field Sampling Procedures

A field sampling team led by Mr. Steve Hoke, BEMSA, collected aqueous samples in 40ml glass VOA vials. Samples were preserved with HCl and stored at 4^0C until analysis.

2.2 Analytical Method

Samples were analyzed by the following method: Mobile Lab Method 524 - Measurement of Purgeable VOCs in Water by Capillary Column GC/MS.

3.0 REPORTING

3.1 Sample Dilutions

Compounds tagged with an "E" have exceeded the calibration range and should be evaluated using a diluted sample result, if supplied. Diluted sample results have been corrected using the dilution factor.

3.2 Internal Standards and Surrogate Spikes

Internal Standards (ISTD) and System Monitoring Compounds (SMC) have been added to the sample to check instrument performance and the analytical technique. They are not indicative of sample contamination. Continuing Calibration Standards were analyzed to verify GC/MS tune integrity.

3.3 Tentatively Identified Compounds (TICs)

Non-target compound peaks were identified by a computerized search of the NIST/EPA/NIH mass spectral library and quantitated using a relative response ratio of unity to the nearest ISTD. Results were sorted by area and the top ten peaks for each sample were reported in retention time order as TICs. A report showing the five best library matches for each peak is included with the analytical results reports for each sample.

4.0 NONCONFORMANCE SUMMARY

Trace chloromethane (<1ppb) was detected in some quality control blanks and field samples. As noted on the chain of custody, no samples identified as MW-8 were received by the lab.

Please direct questions or comments to Kenneth Glasser or Corey Lakin at the NJDEP Environmental Laboratory, Foran Technical Services Bldg., 951 Parkway Ave., Ewing, NJ, 08618-2315. Telephone: 609-530-2007 Fax: 609-530-2133

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/10/11 17:55
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: Trip Blank
Lab Data File Name: 08101167.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.08E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	0.53	B	5.54	8.18E+04	50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	ND				61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	ND				63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	ND				95.95	97.95	0.4
14)	chloroform	ND				82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND				96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	ND				78.00	77.00	0.4
20)	1,2 dichloroethane	ND				62.00	98.05	0.4
21)	trichloroethene	ND				130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	ND				92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND				83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	ND				165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	ND				106.15	91.05	0.4
37)	o-xylene	ND				106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.81	*SMC	30.67	3.11E+06	95.00	173.95	0.4	89.1
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.38	*SMC	36.37	3.01E+06	151.90	149.90	0.4	81.9
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101167.D Vial: 27
Acq On : 10 Aug 11 5:55 pm Operator: cwlakin
Sample : Trip Blank Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

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08101167.D VOL5973.M Thu Aug 11 10:17:00 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/10/11 18:52
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: Field Blank
Lab Data File Name: 08101168.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.06E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	ND				50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	ND				61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	ND				63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	ND				95.95	97.95	0.4
14)	chloroform	ND				82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND				96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	ND				78.00	77.00	0.4
20)	1,2 dichloroethane	ND				62.00	98.05	0.4
21)	trichloroethene	ND				130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	ND				92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND				83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	ND				165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	ND				106.15	91.05	0.4
37)	o-xylene	ND				106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.76	*SMC	30.67	3.05E+06	95.00	173.95	0.4	88.8
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.29	*SMC	36.37	2.94E+06	151.90	149.90	0.4	81.5
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwiakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101168.D Vial: 28
Acq On : 10 Aug 11 6:52 pm Operator: cwlakin
Sample : Field Blank Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

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08101168.D VOL5973.M Thu Aug 11 10:16:17 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/10/11 20:47
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-1
Lab Data File Name: 08101170.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.04E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	ND					50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	ND					61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	ND					95.95	97.95	0.4
14)	chloroform	ND					82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND					96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	ND					78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	ND					130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	2.39			21.68	7.07E+05	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	0.27	J		23.74	3.85E+04	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND					104.05	78.10	0.4	
39)	isopropylbenzene	ND					120.00	105.00	0.4	
40)	bromoform	ND					172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND					82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.76		*SMC	30.67	3.00E+06	95.00	173.95	0.4	88.8
43)	1,2,3 trichloropropane	ND					110.00	112.00	2.0	
44)	n-propylbenzene	ND					120.00	91.00	0.4	
45)	bromobenzene	ND					155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND					120.00	105.00	0.4	
47)	2-chlorotoluene	ND					91.05	126.05	0.4	
48)	4-chlorotoluene	ND					91.15	126.05	0.4	
49)	tert-butylbenzene	ND					119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	0.31	J		33.11	7.91E+04	120.00	105.00	0.4	
51)	sec-butylbenzene	ND					134.00	105.00	0.4	
52)	4-isopropyltoluene	ND					134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND					145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND					145.95	147.95	0.4	
55)	n-butylbenzene	ND					134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.17		*SMC	36.37	2.87E+06	151.90	149.90	0.4	80.8
57)	1,2 dichlorobenzene	ND					145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND					75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND					180.00	182.00	0.4	
60)	hexachlorobutadiene	ND					224.90	226.90	0.4	
61)	naphthalene	ND					128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND					180.00	182.00	1.0	
63)	MTBE	ND					73.10	57.05	2.0	

GC/MS Operator cwlaklin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101170.D Vial: 30
Acq On : 10 Aug 11 8:47 pm Operator: cwlakin
Sample : MW-1 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Propene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	3.63 PPB	3907450	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propene	42	C3H6	000115-07-1	90
2	2-Butenal, (E)-	70	C4H6O	000123-73-9	83
3	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	83
4	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	74
5	Propene	42	C3H6	000115-07-1	45

****

Peak Number 2 1-Propene, 2-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	1.61 PPB	1734680	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
2	1-Propene, 2-methyl-	56	C4H8	000115-11-7	87
3	1-Butene	56	C4H8	000106-98-9	86
4	1-Butene	56	C4H8	000106-98-9	86
5	1-Butene	56	C4H8	000106-98-9	86

****

Peak Number 3 1-Butene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.18	0.29 PPB	306988	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butene	56	C4H8	000106-98-9	72
2	1-Propene, 2-methyl-	56	C4H8	000115-11-7	72
3	2-Butene, (E)-	56	C4H8	000624-64-6	64
4	2-Butene, (E)-	56	C4H8	000624-64-6	64
5	2-Butene, (Z)-	56	C4H8	000590-18-1	64

****

Peak Number 4 Cyclopropane, ethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.44	0.42 PPB	447779	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, ethyl-	70	C5H10	001191-96-4	83
2	1-Pentene	70	C5H10	000109-67-1	80
3	1-Pentene	70	C5H10	000109-67-1	80
4	2-Pentene	70	C5H10	000109-68-2	72
5	Cyclopropane, ethyl-	70	C5H10	001191-96-4	72

****

Peak Number 5 Carbon disulfide Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.37	0.32 PPB	341928	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	90
2	Carbon disulfide	76	CS2	000075-15-0	74
3	Carbon disulfide	76	CS2	000075-15-0	9
4	Thiourea	76	CH4N2S	000062-56-6	7
5	Thiourea	76	CH4N2S	000062-56-6	7

****

Peak Number 6 Benzene, 1-ethyl-2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
31.45	0.28 PPB	298904	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
3	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
5	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	90

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Peak Number 7 2-Octanone Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
32.32	0.46 PPB	492566	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octanone	128	C8H16O	000111-13-7	90
2	2-Octanone	128	C8H16O	000111-13-7	90
3	2-Octanone	128	C8H16O	000111-13-7	87
4	2-Octanone	128	C8H16O	000111-13-7	83
5	2-Octanone	128	C8H16O	000111-13-7	81

08101170.D VOL5973.M Thu Aug 11 10:23:47 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 01:35
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-2
Lab Data File Name: 08101175.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.05E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	ND					50.00	52.00	0.4
4)	vinyl chloride	0.34	J		5.86	5.77E+04	62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	ND					61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	42.99	E		13.48	5.01E+06	95.95	97.95	0.4
14)	chloroform	0.17	J		13.88	2.97E+04	82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND					96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	0.16	J		16.14	7.20E+04	78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	2.36			17.80	3.12E+05	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	3.45			21.67	1.03E+06	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	22.73			23.75	3.31E+06	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	0.20	J		26.66	3.91E+04	106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	0.92			26.92	2.19E+05	106.15	91.05	0.4
37)	o-xylene	0.77			28.46	1.69E+05	106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	18.10	*SMC	30.67	3.08E+06	95.00	173.95	0.4	90.5
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	0.64		31.66	1.76E+05	120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	1.22		33.11	3.12E+05	120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.60	*SMC	36.37	2.98E+06	151.90	149.90	0.4	83.0
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101175.D Vial: 35
Acq On : 11 Aug 11 1:35 am Operator: cwlakin
Sample : MW-2 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

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Peak Number 1 Propene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.97	22.77 PPB	24712200	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propene	42	C3H6	000115-07-1	90
2	Cyclopropane	42	C3H6	000075-19-4	47
3	Cyclopropane	42	C3H6	000075-19-4	38
4	Propene	42	C3H6	000115-07-1	35
5	Cyclopropane	42	C3H6	000075-19-4	16

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Peak Number 2 1-Propene, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.68	1.19 PPB	1296520	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
2	1-Butene	56	C4H8	000106-98-9	90
3	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
4	1-Butene	56	C4H8	000106-98-9	87
5	1-Butene	56	C4H8	000106-98-9	87

****

Peak Number 3 1-Propene, 2-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.18	0.22 PPB	235898	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	80
2	1-Butene	56	C4H8	000106-98-9	80
3	1-Butene	56	C4H8	000106-98-9	80
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	72
5	1-Propene, 2-methyl-	56	C4H8	000115-11-7	72

****

Peak Number 4 1-Pentene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.44	0.29 PPB	317642	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene	70	C5H10	000109-67-1	86
2	Cyclopropane, ethyl-	70	C5H10	001191-96-4	86
3	Cyclopropane, ethyl-	70	C5H10	001191-96-4	80
4	1-Pentene	70	C5H10	000109-67-1	78
5	1-Pentene	70	C5H10	000109-67-1	59

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Peak Number 5 Carbon disulfide Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.36	1.44 PPB	1567500	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	83
2	Carbon disulfide	76	CS2	000075-15-0	83
3	Thiourea	76	CH4N2S	000062-56-6	9
4	Thiourea	76	CH4N2S	000062-56-6	7
5	Carbon disulfide	76	CS2	000075-15-0	5

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Peak Number 6 Benzene, 1-ethyl-2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
31.45	1.23 PPB	1338700	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
3	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	93
4	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	93
5	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	93

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Peak Number 7 2-Octanone Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
32.31	0.92 PPB	1001520	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octanone	128	C8H16O	000111-13-7	91
2	2-Octanone	128	C8H16O	000111-13-7	91
3	2-Octanone	128	C8H16O	000111-13-7	91
4	2-Octanamine, N-(1-methylheptyl)-	241	C16H35N	005412-92-0	78
5	2-Octanone	128	C8H16O	000111-13-7	74

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Peak Number 8 Benzene, 1-ethyl-2-methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
32.63	0.44 PPB	477324	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
3	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	94
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
5	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91

****

Peak Number 9 Benzene, 1,2,3-trimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
34.90	0.56 PPB	604735	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
3	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	93
5	1,2,4-Trimethylbenzene	120	C9H12	000095-36-3	91

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Peak Number 10 Benzene, 4-ethyl-1,2-dimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
35.71	0.21 PPB	224665	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	93
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	90
3	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	90
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	90
5	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	90

08101175.D VOL5973.M Thu Aug 11 10:56:10 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 17:24
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW2 1/10
Lab Data File Name: 08111166.D
Sample Matrix: Aqueous Dilution=1/ 10
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.13E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	4.0
3)	chloromethane	ND					50.00	52.00	4.0
4)	vinyl chloride	ND					62.05	64.05	4.0
5)	bromomethane	ND					94.05	96.05	4.0
6)	chloroethane	ND					64.05	66.05	4.0
7)	trichlorofluoromethane	ND					100.95	102.95	4.0
8)	1,1 dichloroethene	ND					61.00	95.95	4.0
9)	methylene chloride	ND					83.95	49.00	4.0
10)	trans-1,2-dichloroethene	ND					95.95	61.00	4.0
11)	1,1 dichloroethane	ND					63.00	65.00	4.0
12)	2,2 dichloropropane	ND					77.00	96.95	4.0
13)	cis-1,2-dichloroethene	36.53			13.49	4.61E+05	95.95	97.95	4.0
14)	chloroform	ND					82.95	84.95	4.0
15)	bromochloromethane	ND					127.95	129.95	4.0
16)	1,1,1 trichloroethane	ND					96.95	99.00	4.0
17)	1,1 dichloropropene	ND					75.00	109.95	4.0
18)	carbon tetrachloride	ND					116.95	118.95	4.0
19)	benzene	ND					78.00	77.00	4.0
20)	1,2 dichloroethane	ND					62.00	98.05	4.0
21)	trichloroethene	2.13	J		17.80	3.06E+04	130.00	95.00	4.0
22)	1,2 dichloropropane	ND					63.00	76.00	4.0
23)	bromodichloromethane	ND					82.95	84.95	4.0
24)	dibromomethane	ND					93.00	95.00	4.0
25)	cis-1,3-dichloropropene	ND					75.00	109.95	4.0
26)	toluene	2.43	J		21.67	7.68E+04	92.00	91.00	4.0
27)	trans-1,3-dichloropropene	ND					75.00	109.95	4.0
28)	1,1,2 trichloroethane	ND					83.00	85.00	4.0
29)	1,3 dichloropropane	ND					76.00	78.00	4.0
30)	tetrachloroethene	19.75			23.75	3.13E+05	165.90	128.95	4.0
31)	dibromochloromethane	ND					129.00	127.00	4.0
32)	1,2 dibromoethane	ND					106.95	108.95	4.0
33)	ethylbenzene	ND					106.00	91.00	4.0
34)	chlorobenzene	ND					112.05	77.00	4.0
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	4.0
36)	m,p-xylene	ND					106.15	91.05	4.0
37)	o-xylene	ND					106.15	91.15	4.0

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	4.0	
39)	isopropylbenzene	ND				120.00	105.00	4.0	
40)	bromoform	ND				172.90	174.90	4.0	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	4.0	
42)	4-bromofluorobenzene	17.76	*SMC	30.67	3.26E+06	95.00	173.95	0.4	88.8
43)	1,2,3 trichloropropane	ND				110.00	112.00	20.0	
44)	n-propylbenzene	ND				120.00	91.00	4.0	
45)	bromobenzene	ND				155.95	157.95	4.0	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	4.0	
47)	2-chlorotoluene	ND				91.05	126.05	4.0	
48)	4-chlorotoluene	ND				91.15	126.05	4.0	
49)	tert-butylbenzene	ND				119.15	91.15	4.0	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	4.0	
51)	sec-butylbenzene	ND				134.00	105.00	4.0	
52)	4-isopropyltoluene	ND				134.00	119.00	4.0	
53)	1,3 dichlorobenzene	ND				145.95	147.95	4.0	
54)	1,4 dichlorobenzene	ND				145.95	147.95	4.0	
55)	n-butylbenzene	ND				134.00	91.00	4.0	
56)	1,2-dichlorobenzene-d4	16.50	*SMC	36.37	3.07E+06	151.90	149.90	0.4	82.5
57)	1,2 dichlorobenzene	ND				145.95	147.95	4.0	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	20.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	4.0	
60)	hexachlorobutadiene	ND				224.90	226.90	4.0	
61)	naphthalene	ND				128.05	0.00	10.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	10.0	
63)	MTBE	ND				73.10	57.05	20.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT. USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/10/11 22:42
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-3
Lab Data File Name: 08101172.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.66	1.06E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	ND					50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	ND					61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	2.25			13.49	2.64E+05	95.95	97.95	0.4
14)	chloroform	ND					82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND					96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	ND					78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	4.19			17.80	5.60E+05	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	0.23	J		21.67	7.04E+04	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	2.85			23.75	4.20E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	0.21	J		26.92	5.12E+04	106.15	91.05	0.4
37)	o-xylene	0.18	J		28.47	3.88E+04	106.15	91.15	0.4

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND					104.05	78.10	0.4	
39)	isopropylbenzene	ND					120.00	105.00	0.4	
40)	bromoform	ND					172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND					82.95	84.95	0.4	
42)	4-bromofluorobenzene	18.06		*SMC	30.67	3.10E+06	95.00	173.95	0.4	90.3
43)	1,2,3 trichloropropane	ND					110.00	112.00	2.0	
44)	n-propylbenzene	ND					120.00	91.00	0.4	
45)	bromobenzene	ND					155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	0.32	J		31.66	8.82E+04	120.00	105.00	0.4	
47)	2-chlorotoluene	ND					91.05	126.05	0.4	
48)	4-chlorotoluene	ND					91.15	126.05	0.4	
49)	tert-butylbenzene	ND					119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	0.58			33.11	1.50E+05	120.00	105.00	0.4	
51)	sec-butylbenzene	ND					134.00	105.00	0.4	
52)	4-isopropyltoluene	ND					134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND					145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND					145.95	147.95	0.4	
55)	n-butylbenzene	ND					134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.39		*SMC	36.37	2.96E+06	151.90	149.90	0.4	81.9
57)	1,2 dichlorobenzene	ND					145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND					75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND					180.00	182.00	0.4	
60)	hexachlorobutadiene	ND					224.90	226.90	0.4	
61)	naphthalene	ND					128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND					180.00	182.00	1.0	
63)	MTBE	ND					73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101172.D Vial: 32
Acq On : 10 Aug 11 10:42 pm Operator: cwlakin
Sample : MW-3 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Propene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.95	2.10 PPB	2296880	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propene	42	C3H6	000115-07-1	90
2	2-Butenal, (E)-	70	C4H6O	000123-73-9	78
3	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	74
4	2-Propenenitrile, 2-methyl-	67	C4H5N	000126-98-7	64
5	3-Butenenitrile	67	C4H5N	000109-75-1	50

****

Peak Number 2 1-Propene, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.68	1.09 PPB	1197050	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
2	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
3	1-Butene	56	C4H8	000106-98-9	90
4	1-Butene	56	C4H8	000106-98-9	87
5	1-Butene	56	C4H8	000106-98-9	87

****

Peak Number 3 1-Propene, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.18	0.24 PPB	268028	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	80
2	2-Butene, (E)-	56	C4H8	000624-64-6	80
3	1-Propene, 2-methyl-	56	C4H8	000115-11-7	78
4	1-Butene	56	C4H8	000106-98-9	72
5	2-Butene, (Z)-	56	C4H8	000590-18-1	72

****

Peak Number 4 1-Pentene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.43	0.34 PPB	370891	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene	70	C5H10	000109-67-1	86
2	Cyclopropane, ethyl-	70	C5H10	001191-96-4	80
3	1-Pentene	70	C5H10	000109-67-1	80
4	Cyclopropane, ethyl-	70	C5H10	001191-96-4	80
5	1-Pentene	70	C5H10	000109-67-1	53

****

Peak Number 5 Carbon disulfide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.36	2.13 PPB	2332200	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	83
2	Carbon disulfide	76	CS2	000075-15-0	74
3	Carbon disulfide	76	CS2	000075-15-0	9
4	Thiourea	76	CH4N2S	000062-56-6	9
5	Thiourea	76	CH4N2S	000062-56-6	7

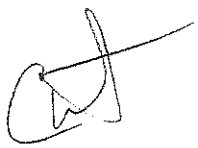
****

Peak Number 6 Benzene, 1-ethyl-3-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
31.46	0.57 PPB	624826	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
5	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91

08101172.D VOL5973.M Thu Aug 11 10:39:41 2011



NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/10/11 23:40
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-4
Lab Data File Name: 08101173.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.07E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	ND				50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	1.35		9.01	2.33E+05	61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	ND				63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	3.66		13.48	4.36E+05	95.95	97.95	0.4
14)	chloroform	0.16	J	13.87	2.93E+04	82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	0.60		14.92	1.03E+05	96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	ND				78.00	77.00	0.4
20)	1,2 dichloroethane	ND				62.00	98.05	0.4
21)	trichloroethene	45.88	E	17.80	6.21E+06	130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	ND				92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND				83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	0.89		23.76	1.32E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	ND				106.15	91.05	0.4
37)	o-xylene	ND				106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.64	*SMC	30.67	3.07E+06	95.00	173.95	0.4	88.2
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	15.80	*SMC	36.37	2.90E+06	151.90	149.90	0.4	79.0
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwiakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101173.D Vial: 33
Acq On : 10 Aug 11 11:40 pm Operator: cwlakin
Sample : MW-4 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

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08101173.D VOL5973.M Thu Aug 11 10:51:01 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: 377 N. 11th St.
Date Received: 8/4/11
Date Analyzed: 08/16/11 20:49
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-4 (lab dup)
Lab Data File Name: 08161169.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.33E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	ND					50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	1.38			9.01	2.83E+05	61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	3.66			13.48	5.44E+05	95.95	97.95	0.4
14)	chloroform	0.17	J		13.88	3.84E+04	82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	0.68			14.93	1.48E+05	96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	ND					78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	47.56	E		17.80	8.27E+06	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	ND					92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	0.88			23.75	1.67E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	18.40	*SMC	30.67	3.98E+06	95.00	173.95	0.4	92.0
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	17.37	*SMC	36.37	3.71E+06	151.90	149.90	0.4	86.9
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
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"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
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Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08161169.D Vial: 29
Acq On : 16 Aug 11 8:49 pm Operator: cwlakin
Sample : MW-4 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

****

08161169.D VOL5973.M Wed Aug 24 10:14:26 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 18:22
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW4 1/10
Lab Data File Name: 08111167.D
Sample Matrix: Aqueous Dilution=1/ 10
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.11E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	4.0
3)	chloromethane	ND					50.00	52.00	4.0
4)	vinyl chloride	ND					62.05	64.05	4.0
5)	bromomethane	ND					94.05	96.05	4.0
6)	chloroethane	ND					64.05	66.05	4.0
7)	trichlorofluoromethane	ND					100.95	102.95	4.0
8)	1,1 dichloroethene	1.17	J		9.03	2.04E+04	61.00	95.95	4.0
9)	methylene chloride	ND					83.95	49.00	4.0
10)	trans-1,2-dichloroethene	ND					95.95	61.00	4.0
11)	1,1 dichloroethane	ND					63.00	65.00	4.0
12)	2,2 dichloropropane	ND					77.00	96.95	4.0
13)	cis-1,2-dichloroethene	3.04	J		13.49	3.75E+04	95.95	97.95	4.0
14)	chloroform	ND					82.95	84.95	4.0
15)	bromochloromethane	ND					127.95	129.95	4.0
16)	1,1,1 trichloroethane	ND					96.95	99.00	4.0
17)	1,1 dichloropropene	ND					75.00	109.95	4.0
18)	carbon tetrachloride	ND					116.95	118.95	4.0
19)	benzene	ND					78.00	77.00	4.0
20)	1,2 dichloroethane	ND					62.00	98.05	4.0
21)	trichloroethene	38.35			17.80	5.41E+05	130.00	95.00	4.0
22)	1,2 dichloropropane	ND					63.00	76.00	4.0
23)	bromodichloromethane	ND					82.95	84.95	4.0
24)	dibromomethane	ND					93.00	95.00	4.0
25)	cis-1,3-dichloropropene	ND					75.00	109.95	4.0
26)	toluene	ND					92.00	91.00	4.0
27)	trans-1,3-dichloropropene	ND					75.00	109.95	4.0
28)	1,1,2 trichloroethane	ND					83.00	85.00	4.0
29)	1,3 dichloropropane	ND					76.00	78.00	4.0
30)	tetrachloroethene	ND					165.90	128.95	4.0
31)	dibromochloromethane	ND					129.00	127.00	4.0
32)	1,2 dibromoethane	ND					106.95	108.95	4.0
33)	ethylbenzene	ND					106.00	91.00	4.0
34)	chlorobenzene	ND					112.05	77.00	4.0
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	4.0
36)	m,p-xylene	ND					106.15	91.05	4.0
37)	o-xylene	ND					106.15	91.15	4.0

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	4.0	
39)	isopropylbenzene	ND				120.00	105.00	4.0	
40)	bromoform	ND				172.90	174.90	4.0	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	4.0	
42)	4-bromofluorobenzene	17.90	*SMC	30.67	3.21E+06	95.00	173.95	0.4	89.5
43)	1,2,3 trichloropropane	ND				110.00	112.00	20.0	
44)	n-propylbenzene	ND				120.00	91.00	4.0	
45)	bromobenzene	ND				155.95	157.95	4.0	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	4.0	
47)	2-chlorotoluene	ND				91.05	126.05	4.0	
48)	4-chlorotoluene	ND				91.15	126.05	4.0	
49)	tert-butylbenzene	ND				119.15	91.15	4.0	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	4.0	
51)	sec-butylbenzene	ND				134.00	105.00	4.0	
52)	4-isopropyltoluene	ND				134.00	119.00	4.0	
53)	1,3 dichlorobenzene	ND				145.95	147.95	4.0	
54)	1,4 dichlorobenzene	ND				145.95	147.95	4.0	
55)	n-butylbenzene	ND				134.00	91.00	4.0	
56)	1,2-dichlorobenzene-d4	16.71	*SMC	36.37	3.05E+06	151.90	149.90	0.4	83.5
57)	1,2 dichlorobenzene	ND				145.95	147.95	4.0	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	20.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	4.0	
60)	hexachlorobutadiene	ND				224.90	226.90	4.0	
61)	naphthalene	ND				128.05	0.00	10.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	10.0	
63)	MTBE	ND				73.10	57.05	20.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/17/11 04:28
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-5
Lab Data File Name: 08161177.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.25E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	ND				50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	156.54	E	9.01	3.02E+07	61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	2.60		11.91	5.92E+05	63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	2.89		13.49	4.06E+05	95.95	97.95	0.4
14)	chloroform	0.20	J	13.87	4.13E+04	82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	35.17		14.93	7.27E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	ND				78.00	77.00	0.4
20)	1,2 dichloroethane	1.12		16.10	1.04E+05	62.00	98.05	0.4
21)	trichloroethene	233.40	E	17.80	3.83E+07	130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	ND				92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	0.38	J	22.77	1.72E+04	83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	4.91		23.75	8.82E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	ND				106.15	91.05	0.4
37)	o-xylene	ND				106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.71	*SMC	30.67	3.61E+06	95.00	173.95	0.4	88.5
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.65	*SMC	36.37	3.35E+06	151.90	149.90	0.4	83.3
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwjakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08161177.D Vial: 33
Acq On : 17 Aug 11 4:28 am Operator: cwlakin
Sample : MW-5 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Ethane, 1,1,2-trichloro-1,2,2- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.52	0.24 PPB	306527	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	90
2	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	90
3	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	90
4	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	74
5	Trichloromonofluoromethane	136	CCl3F	000075-69-4	35

08161177.D VOL5973.M Wed Aug 24 13:02:08 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 21:14
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-5 1/20
Lab Data File Name: 08111170.D
Sample Matrix: Aqueous Dilution=1/ 20
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.07E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	8.0
3)	chloromethane	ND					50.00	52.00	8.0
4)	vinyl chloride	ND					62.05	64.05	8.0
5)	bromomethane	ND					94.05	96.05	8.0
6)	chloroethane	ND					64.05	66.05	8.0
7)	trichlorofluoromethane	ND					100.95	102.95	8.0
8)	1,1 dichloroethene	149.86			9.01	1.26E+06	61.00	95.95	8.0
9)	methylene chloride	ND					83.95	49.00	8.0
10)	trans-1,2-dichloroethene	ND					95.95	61.00	8.0
11)	1,1 dichloroethane	ND					63.00	65.00	8.0
12)	2,2 dichloropropane	ND					77.00	96.95	8.0
13)	cis-1,2-dichloroethene	2.29	J		13.48	1.37E+04	95.95	97.95	8.0
14)	chloroform	ND					82.95	84.95	8.0
15)	bromochloromethane	ND					127.95	129.95	8.0
16)	1,1,1 trichloroethane	27.36			14.93	2.40E+05	96.95	99.00	8.0
17)	1,1 dichloropropene	ND					75.00	109.95	8.0
18)	carbon tetrachloride	ND					116.95	118.95	8.0
19)	benzene	ND					78.00	77.00	8.0
20)	1,2 dichloroethane	ND					62.00	98.05	8.0
21)	trichloroethene	270.71			17.80	1.84E+06	130.00	95.00	8.0
22)	1,2 dichloropropane	ND					63.00	76.00	8.0
23)	bromodichloromethane	ND					82.95	84.95	8.0
24)	dibromomethane	ND					93.00	95.00	8.0
25)	cis-1,3-dichloropropene	ND					75.00	109.95	8.0
26)	toluene	ND					92.00	91.00	8.0
27)	trans-1,3-dichloropropene	ND					75.00	109.95	8.0
28)	1,1,2 trichloroethane	ND					83.00	85.00	8.0
29)	1,3 dichloropropane	ND					76.00	78.00	8.0
30)	tetrachloroethene	4.29	J		23.75	3.23E+04	165.90	128.95	8.0
31)	dibromochloromethane	ND					129.00	127.00	8.0
32)	1,2 dibromoethane	ND					106.95	108.95	8.0
33)	ethylbenzene	ND					106.00	91.00	8.0
34)	chlorobenzene	ND					112.05	77.00	8.0
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	8.0
36)	m,p-xylene	ND					106.15	91.05	8.0
37)	o-xylene	ND					106.15	91.15	8.0

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	8.0	
39)	isopropylbenzene	ND				120.00	105.00	8.0	
40)	bromoform	ND				172.90	174.90	8.0	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	8.0	
42)	4-bromofluorobenzene	17.80	*SMC	30.67	3.09E+06	95.00	173.95	0.4	89.0
43)	1,2,3 trichloropropane	ND				110.00	112.00	40.0	
44)	n-propylbenzene	ND				120.00	91.00	8.0	
45)	bromobenzene	ND				155.95	157.95	8.0	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	8.0	
47)	2-chlorotoluene	ND				91.05	126.05	8.0	
48)	4-chlorotoluene	ND				91.15	126.05	8.0	
49)	tert-butylbenzene	ND				119.15	91.15	8.0	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	8.0	
51)	sec-butylbenzene	ND				134.00	105.00	8.0	
52)	4-isopropyltoluene	ND				134.00	119.00	8.0	
53)	1,3 dichlorobenzene	ND				145.95	147.95	8.0	
54)	1,4 dichlorobenzene	ND				145.95	147.95	8.0	
55)	n-butylbenzene	ND				134.00	91.00	8.0	
56)	1,2-dichlorobenzene-d4	16.49	*SMC	36.37	2.91E+06	151.90	149.90	0.4	82.4
57)	1,2 dichlorobenzene	ND				145.95	147.95	8.0	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	40.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	8.0	
60)	hexachlorobutadiene	ND				224.90	226.90	8.0	
61)	naphthalene	ND				128.05	0.00	20.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	20.0	
63)	MTBE	ND				73.10	57.05	40.0	

GC/MS Operator cwiakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT. USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/12/11 12:07
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-5D
Lab Data File Name: 08111173.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.07E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	ND					50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	10.47			9.01	1.75E+06	61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	0.19	J		11.92	3.63E+04	63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	0.12	J		13.50	1.47E+04	95.95	97.95	0.4
14)	chloroform	ND					82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	5.77			14.93	1.01E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	ND					78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	57.10		E	17.80	7.74E+06	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	ND					92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	2.54			23.75	3.80E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.91	*SMC	30.67	3.09E+06	95.00	173.95	0.4	89.5
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.51	*SMC	36.37	2.89E+06	151.90	149.90	0.4	82.5
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT. USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08111173.D Vial: 33
Acq On : 12 Aug 11 12:07 am Operator: cwlakin
Sample : MW-5D Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

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08111173.D VOL5973.M Wed Aug 24 13:42:46 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 19:19
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW5D 1/10
Lab Data File Name: 08111168.D
Sample Matrix: Aqueous Dilution=1/ 10
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.10E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	4.0
3)	chloromethane	ND					50.00	52.00	4.0
4)	vinyl chloride	ND					62.05	64.05	4.0
5)	bromomethane	ND					94.05	96.05	4.0
6)	chloroethane	ND					64.05	66.05	4.0
7)	trichlorofluoromethane	ND					100.95	102.95	4.0
8)	1,1 dichloroethene	7.71			9.01	1.32E+05	61.00	95.95	4.0
9)	methylene chloride	ND					83.95	49.00	4.0
10)	trans-1,2-dichloroethene	ND					95.95	61.00	4.0
11)	1,1 dichloroethane	ND					63.00	65.00	4.0
12)	2,2 dichloropropane	ND					77.00	96.95	4.0
13)	cis-1,2-dichloroethene	ND					95.95	97.95	4.0
14)	chloroform	ND					82.95	84.95	4.0
15)	bromochloromethane	ND					127.95	129.95	4.0
16)	1,1,1 trichloroethane	5.00			14.92	8.96E+04	96.95	99.00	4.0
17)	1,1 dichloropropene	ND					75.00	109.95	4.0
18)	carbon tetrachloride	ND					116.95	118.95	4.0
19)	benzene	ND					78.00	77.00	4.0
20)	1,2 dichloroethane	ND					62.00	98.05	4.0
21)	trichloroethene	46.46			17.80	6.47E+05	130.00	95.00	4.0
22)	1,2 dichloropropane	ND					63.00	76.00	4.0
23)	bromodichloromethane	ND					82.95	84.95	4.0
24)	dibromomethane	ND					93.00	95.00	4.0
25)	cis-1,3-dichloropropene	ND					75.00	109.95	4.0
26)	toluene	ND					92.00	91.00	4.0
27)	trans-1,3-dichloropropene	ND					75.00	109.95	4.0
28)	1,1,2 trichloroethane	ND					83.00	85.00	4.0
29)	1,3 dichloropropane	ND					76.00	78.00	4.0
30)	tetrachloroethene	2.22	J		23.75	3.41E+04	165.90	128.95	4.0
31)	dibromochloromethane	ND					129.00	127.00	4.0
32)	1,2 dibromoethane	ND					106.95	108.95	4.0
33)	ethylbenzene	ND					106.00	91.00	4.0
34)	chlorobenzene	ND					112.05	77.00	4.0
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	4.0
36)	m,p-xylene	ND					106.15	91.05	4.0
37)	o-xylene	ND					106.15	91.15	4.0

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	4.0	
39)	isopropylbenzene	ND				120.00	105.00	4.0	
40)	bromoform	ND				172.90	174.90	4.0	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	4.0	
42)	4-bromofluorobenzene	17.82	*SMC	30.67	3.16E+06	95.00	173.95	0.4	89.1
43)	1,2,3 trichloropropane	ND				110.00	112.00	20.0	
44)	n-propylbenzene	ND				120.00	91.00	4.0	
45)	bromobenzene	ND				155.95	157.95	4.0	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	4.0	
47)	2-chlorotoluene	ND				91.05	126.05	4.0	
48)	4-chlorotoluene	ND				91.15	126.05	4.0	
49)	tert-butylbenzene	ND				119.15	91.15	4.0	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	4.0	
51)	sec-butylbenzene	ND				134.00	105.00	4.0	
52)	4-isopropyltoluene	ND				134.00	119.00	4.0	
53)	1,3 dichlorobenzene	ND				145.95	147.95	4.0	
54)	1,4 dichlorobenzene	ND				145.95	147.95	4.0	
55)	n-butylbenzene	ND				134.00	91.00	4.0	
56)	1,2-dichlorobenzene-d4	16.58	*SMC	36.37	2.98E+06	151.90	149.90	0.4	82.9
57)	1,2 dichlorobenzene	ND				145.95	147.95	4.0	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	20.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	4.0	
60)	hexachlorobutadiene	ND				224.90	226.90	4.0	
61)	naphthalene	ND				128.05	0.00	10.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	10.0	
63)	MTBE	ND				73.10	57.05	20.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
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USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Field Sample Name: MW-6
Date Received: 8/4/11
Lab Data File Name: 08101171.D
Date Analyzed: 08/10/11 21:45
Sample Matrix: Aqueous Dilution=1/ 1
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.66	1.05E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	0.52		B	5.57	7.88E+04	50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	ND					61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	0.15	J		13.48	1.75E+04	95.95	97.95	0.4
14)	chloroform	0.19	J		13.87	3.32E+04	82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND					96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	0.13	J		16.14	5.94E+04	78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	3.62			17.80	4.80E+05	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	1.70			21.67	5.07E+05	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	0.31	J		23.76	4.50E+04	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND					104.05	78.10	0.4	
39)	isopropylbenzene	ND					120.00	105.00	0.4	
40)	bromoform	ND					172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND					82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.68		*SMC	30.67	3.02E+06	95.00	173.95	0.4	88.4
43)	1,2,3 trichloropropane	ND					110.00	112.00	2.0	
44)	n-propylbenzene	ND					120.00	91.00	0.4	
45)	bromobenzene	ND					155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND					120.00	105.00	0.4	
47)	2-chlorotoluene	ND					91.05	126.05	0.4	
48)	4-chlorotoluene	ND					91.15	126.05	0.4	
49)	tert-butylbenzene	ND					119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	0.23	J		33.11	5.93E+04	120.00	105.00	0.4	
51)	sec-butylbenzene	ND					134.00	105.00	0.4	
52)	4-isopropyltoluene	ND					134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND					145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND					145.95	147.95	0.4	
55)	n-butylbenzene	ND					134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	15.86		*SMC	36.37	2.85E+06	151.90	149.90	0.4	79.3
57)	1,2 dichlorobenzene	ND					145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND					75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND					180.00	182.00	0.4	
60)	hexachlorobutadiene	ND					224.90	226.90	0.4	
61)	naphthalene	ND					128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND					180.00	182.00	1.0	
63)	MTBE	ND					73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
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Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101171.D Vial: 31
Acq On : 10 Aug 11 9:45 pm Operator: cwlakin
Sample : MW-6 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Propene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.95	2.62 PPB	2855100	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propene	42	C3H6	000115-07-1	90
2	2-Butenal, (E)-	70	C4H6O	000123-73-9	83
3	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	83
4	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	74
5	1-Propen-1-one, 2-methyl-	70	C4H6O	000598-26-5	64

****

Peak Number 2 1-Propene, 2-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.68	1.37 PPB	1492790	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
2	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
3	1-Butene	56	C4H8	000106-98-9	87
4	1-Butene	56	C4H8	000106-98-9	87
5	1-Butene	56	C4H8	000106-98-9	87

****

Peak Number 3 1-Butene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.18	0.22 PPB	240249	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butene	56	C4H8	000106-98-9	80
2	1-Butene	56	C4H8	000106-98-9	72
3	2-Butene, (E)-	56	C4H8	000624-64-6	64
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	64
5	1-Propene, 2-methyl-	56	C4H8	000115-11-7	64

****

Peak Number 4 1-Pentene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.43	0.41 PPB	443499	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene	70	C5H10	000109-67-1	86
2	Cyclopropane, ethyl-	70	C5H10	001191-96-4	80
3	Cyclopropane, ethyl-	70	C5H10	001191-96-4	80
4	1-Pentene	70	C5H10	000109-67-1	72
5	1-Pentene	70	C5H10	000109-67-1	58

****

Peak Number 5 Carbon disulfide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.36	0.45 PPB	487624	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	74
2	Carbon disulfide	76	CS2	000075-15-0	74
3	Carbon disulfide	76	CS2	000075-15-0	9
4	Thiourea	76	CH4N2S	000062-56-6	9
5	Thiourea	76	CH4N2S	000062-56-6	7

****

Peak Number 6 Benzene, 1-ethyl-2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
31.46	0.21 PPB	231819	fluorobenzene	16.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
3	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
4	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91
5	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91

08101171.D VOL5973.M Thu Aug 11 10:32:50 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/16/11 19:51
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-6 (lab dup)
Lab Data File Name: 08161168.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.31E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	ND					50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	ND					61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	0.16	J		13.49	2.42E+04	95.95	97.95	0.4
14)	chloroform	0.21	J		13.87	4.58E+04	82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND					96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	0.13	J		16.13	7.58E+04	78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	3.74			17.80	6.44E+05	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	1.79			21.68	6.69E+05	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	0.32	J		23.76	6.01E+04	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND					104.05	78.10	0.4	
39)	isopropylbenzene	ND					120.00	105.00	0.4	
40)	bromoform	ND					172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND					82.95	84.95	0.4	
42)	4-bromofluorobenzene	18.56		*SMC	30.67	3.97E+06	95.00	173.95	0.4	92.8
43)	1,2,3 trichloropropane	ND					110.00	112.00	2.0	
44)	n-propylbenzene	ND					120.00	91.00	0.4	
45)	bromobenzene	ND					155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND					120.00	105.00	0.4	
47)	2-chlorotoluene	ND					91.05	126.05	0.4	
48)	4-chlorotoluene	ND					91.15	126.05	0.4	
49)	tert-butylbenzene	ND					119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	0.28	J		33.11	8.00E+04	120.00	105.00	0.4	
51)	sec-butylbenzene	ND					134.00	105.00	0.4	
52)	4-isopropyltoluene	ND					134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND					145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND					145.95	147.95	0.4	
55)	n-butylbenzene	ND					134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	17.83		*SMC	36.37	3.76E+06	151.90	149.90	0.4	89.2
57)	1,2 dichlorobenzene	ND					145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND					75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND					180.00	182.00	0.4	
60)	hexachlorobutadiene	ND					224.90	226.90	0.4	
61)	naphthalene	ND					128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND					180.00	182.00	1.0	
63)	MTBE	ND					73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT. USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08161168.D Vial: 28
Acq On : 16 Aug 11 7:51 pm Operator: cwlakin
Sample : MW-6 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

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Peak Number 1 Propene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	2.47 PPB	3293840	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propene	42	C3H6	000115-07-1	90
2	2-Butenal, (E)-	70	C4H6O	000123-73-9	83
3	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	74
4	Furan, 2,5-dihydro-	70	C4H6O	001708-29-8	72
5	1-Propen-1-one, 2-methyl-	70	C4H6O	000598-26-5	64

****

Peak Number 2 1-Butene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	1.17 PPB	1565620	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butene	56	C4H8	000106-98-9	87
2	1-Butene	56	C4H8	000106-98-9	86
3	1-Butene	56	C4H8	000106-98-9	86
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	80
5	1-Propene, 2-methyl-	56	C4H8	000115-11-7	80

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Peak Number 3 1-Butene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.18	0.23 PPB	304210	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butene	56	C4H8	000106-98-9	86
2	1-Butene	56	C4H8	000106-98-9	86
3	1-Butene	56	C4H8	000106-98-9	86
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	86
5	2-Butene, (E)-	56	C4H8	000624-64-6	80

****

Peak Number 4 1-Pentene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.44	0.40 PPB	538599	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene	70	C5H10	000109-67-1	86
2	1-Pentene	70	C5H10	000109-67-1	86
3	Cyclopropane, ethyl-	70	C5H10	001191-96-4	72
4	Cyclopropane, ethyl-	70	C5H10	001191-96-4	72
5	1-Pentene	70	C5H10	000109-67-1	64

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Peak Number 5 Carbon disulfide Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.36	0.48 PPB	634964	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	90
2	Carbon disulfide	76	CS2	000075-15-0	83
3	Carbon disulfide	76	CS2	000075-15-0	83
4	Thiourea	76	CH4N2S	000062-56-6	9
5	Thiourea	76	CH4N2S	000062-56-6	7

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Peak Number 6 Benzene, 1-ethyl-4-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
31.45	0.24 PPB	315165	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91

08161168.D VOL5973.M Wed Aug 24 09:57:50 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/10/11 19:50
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-7
Lab Data File Name: 08101169.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.03E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	ND				50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	0.41		9.02	6.83E+04	61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	ND				63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	ND				95.95	97.95	0.4
14)	chloroform	ND				82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND				96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	0.14	J	16.16	6.01E+04	78.00	77.00	0.4
20)	1,2 dichloroethane	ND				62.00	98.05	0.4
21)	trichloroethene	2.11		17.80	2.73E+05	130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	0.14	J	21.68	4.22E+04	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND				83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	ND				165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	0.17	J	26.91	4.03E+04	106.15	91.05	0.4
37)	o-xylene	0.22	J	28.46	4.73E+04	106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	18.14	*SMC	30.67	3.02E+06	95.00	173.95	0.4	90.7
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	0.40		31.66	1.09E+05	120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	0.86		33.11	2.15E+05	120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.94	*SMC	36.37	2.97E+06	151.90	149.90	0.4	84.7
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101169.D Vial: 29
Acq On : 10 Aug 11 7:50 pm Operator: cwlakin
Sample : MW-7 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 1-Propene, 2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	1.13 PPB	1193420	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
2	1-Butene	56	C4H8	000106-98-9	87
3	1-Butene	56	C4H8	000106-98-9	87
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	87
5	1-Butene	56	C4H8	000106-98-9	87

****

Peak Number 2 1-Pentene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.44	0.29 PPB	303777	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene	70	C5H10	000109-67-1	72
2	Cyclopropane, ethyl-	70	C5H10	001191-96-4	72
3	Cyclopropane, ethyl-	70	C5H10	001191-96-4	72
4	1-Pentene	70	C5H10	000109-67-1	52
5	1-Pentene	70	C5H10	000109-67-1	47

****

Peak Number 3 Carbon disulfide Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.37	0.47 PPB	499862	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon disulfide	76	CS2	000075-15-0	9
2	Carbon disulfide	76	CS2	000075-15-0	9
3	Carbon disulfide	76	CS2	000075-15-0	9
4	Thiourea	76	CH4N2S	000062-56-6	9
5	Thiourea	76	CH4N2S	000062-56-6	7

****

Peak Number 4 Hexane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.80	0.24 PPB	259197	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane	86	C6H14	000110-54-3	53
2	1-Hexene	84	C6H12	000592-41-6	53
3	1-Hexene	84	C6H12	000592-41-6	53
4	1-Hexene	84	C6H12	000592-41-6	53
5	3-Buten-1-ol, 3-methyl-	86	C5H10O	000763-32-6	40

****

Peak Number 5 Benzene, 1-ethyl-3-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
31.45	0.72 PPB	766272	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	91
5	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91

****

Peak Number 6 2-Octanone Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
32.32	0.72 PPB	761613	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octanone	128	C8H16O	000111-13-7	94
2	2-Octanone	128	C8H16O	000111-13-7	91
3	2-Octanone	128	C8H16O	000111-13-7	91
4	2-Octanone	128	C8H16O	000111-13-7	91
5	2-Octanamine, N-(1-methylheptyl)-	241	C16H35N	005412-92-0	90

****

Peak Number 7 Benzene, 1,2,3-trimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
34.90	0.26 PPB	270530	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
3	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
5	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	90

08101169.D VOL5973.M Thu Aug 11 10:05:28 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/16/11 22:44
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-23
Lab Data File Name: 08161171.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB		*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.34E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	ND					50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	42.29	E		9.01	8.73E+06	61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	1.55			13.48	2.33E+05	95.95	97.95	0.4
14)	chloroform	0.25	J		13.86	5.74E+04	82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	4.54			14.93	1.00E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	ND					78.00	77.00	0.4
20)	1,2 dichloroethane	0.37	J		16.09	3.70E+04	62.00	98.05	0.4
21)	trichloroethene	263.29	E		17.80	4.62E+07	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	ND					92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	2.50			23.75	4.80E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	18.08	*SMC	30.67	3.94E+06	95.00	173.95	0.4	90.4
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.72	*SMC	36.37	3.60E+06	151.90	149.90	0.4	83.6
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08161171.D Vial: 30
Acq On : 16 Aug 11 10:44 pm Operator: cwlakin
Sample : MW-23 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Ethane, 1,1,2-trichloro-1,2,2- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.50	0.44 PPB	600263	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	90
2	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	83
3	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	83
4	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	74
5	Butane, 1,1,3,4-tetrachloro-1,2,2,3	302	C4Cl4F6	000423-38-1	32

08161171.D VOL5973.M Wed Aug 24 10:22:18 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 23:09
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-23 1/20
Lab Data File Name: 08111172.D
Sample Matrix: Aqueous Dilution=1/ 20
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.06E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	8.0
3)	chloromethane	ND				50.00	52.00	8.0
4)	vinyl chloride	ND				62.05	64.05	8.0
5)	bromomethane	ND				94.05	96.05	8.0
6)	chloroethane	ND				64.05	66.05	8.0
7)	trichlorofluoromethane	ND				100.95	102.95	8.0
8)	1,1 dichloroethene	32.22		9.01	2.66E+05	61.00	95.95	8.0
9)	methylene chloride	ND				83.95	49.00	8.0
10)	trans-1,2-dichloroethene	ND				95.95	61.00	8.0
11)	1,1 dichloroethane	ND				63.00	65.00	8.0
12)	2,2 dichloropropane	ND				77.00	96.95	8.0
13)	cis-1,2-dichloroethene	ND				95.95	97.95	8.0
14)	chloroform	ND				82.95	84.95	8.0
15)	bromochloromethane	ND				127.95	129.95	8.0
16)	1,1,1 trichloroethane	ND				96.95	99.00	8.0
17)	1,1 dichloropropene	ND				75.00	109.95	8.0
18)	carbon tetrachloride	ND				116.95	118.95	8.0
19)	benzene	ND				78.00	77.00	8.0
20)	1,2 dichloroethane	ND				62.00	98.05	8.0
21)	trichloroethene	397.13		17.80	2.67E+06	130.00	95.00	8.0
22)	1,2 dichloropropane	ND				63.00	76.00	8.0
23)	bromodichloromethane	ND				82.95	84.95	8.0
24)	dibromomethane	ND				93.00	95.00	8.0
25)	cis-1,3-dichloropropene	ND				75.00	109.95	8.0
26)	toluene	ND				92.00	91.00	8.0
27)	trans-1,3-dichloropropene	ND				75.00	109.95	8.0
28)	1,1,2 trichloroethane	ND				83.00	85.00	8.0
29)	1,3 dichloropropane	ND				76.00	78.00	8.0
30)	tetrachloroethene	2.07	J	23.75	1.53E+04	165.90	128.95	8.0
31)	dibromochloromethane	ND				129.00	127.00	8.0
32)	1,2 dibromoethane	ND				106.95	108.95	8.0
33)	ethylbenzene	ND				106.00	91.00	8.0
34)	chlorobenzene	ND				112.05	77.00	8.0
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	8.0
36)	m,p-xylene	ND				106.15	91.05	8.0
37)	o-xylene	ND				106.15	91.15	8.0

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	8.0	
39)	isopropylbenzene	ND				120.00	105.00	8.0	
40)	bromoform	ND				172.90	174.90	8.0	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	8.0	
42)	4-bromofluorobenzene	17.69	*SMC	30.67	3.03E+06	95.00	173.95	0.4	88.5
43)	1,2,3 trichloropropane	ND				110.00	112.00	40.0	
44)	n-propylbenzene	ND				120.00	91.00	8.0	
45)	bromobenzene	ND				155.95	157.95	8.0	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	8.0	
47)	2-chlorotoluene	ND				91.05	126.05	8.0	
48)	4-chlorotoluene	ND				91.15	126.05	8.0	
49)	tert-butylbenzene	ND				119.15	91.15	8.0	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	8.0	
51)	sec-butylbenzene	ND				134.00	105.00	8.0	
52)	4-isopropyltoluene	ND				134.00	119.00	8.0	
53)	1,3 dichlorobenzene	ND				145.95	147.95	8.0	
54)	1,4 dichlorobenzene	ND				145.95	147.95	8.0	
55)	n-butylbenzene	ND				134.00	91.00	8.0	
56)	1,2-dichlorobenzene-d4	16.38	*SMC	36.37	2.84E+06	151.90	149.90	0.4	81.9
57)	1,2 dichlorobenzene	ND				145.95	147.95	8.0	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	40.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	8.0	
60)	hexachlorobutadiene	ND				224.90	226.90	8.0	
61)	naphthalene	ND				128.05	0.00	20.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	20.0	
63)	MTBE	ND				73.10	57.05	40.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
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Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/17/11 02:33
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-24
Lab Data File Name: 08161175.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.30E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	ND				50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	58.69	E	9.01	1.18E+07	61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	0.45		11.91	1.07E+05	63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	1.25		13.49	1.82E+05	95.95	97.95	0.4
14)	chloroform	0.15	J	13.88	3.29E+04	82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	27.53		14.93	5.92E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	ND				78.00	77.00	0.4
20)	1,2 dichloroethane	0.79		16.10	7.54E+04	62.00	98.05	0.4
21)	trichloroethene	230.22	E	17.80	3.93E+07	130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	ND				92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	0.25	J	22.77	1.17E+04	83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	3.05		23.75	5.70E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	ND				106.15	91.05	0.4
37)	o-xylene	ND				106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.84	*SMC	30.67	3.78E+06	95.00	173.95	0.4	89.2
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.50	*SMC	36.37	3.45E+06	151.90	149.90	0.4	82.5
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08161175.D Vial: 32
Acq On : 17 Aug 11 2:33 am Operator: cwlakin
Sample : MW-24 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Ethane, 1,1,2-trichloro-1,2,2- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.51	0.21 PPB	279025	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	90
2	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	83
3	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	78
4	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	78
5	Butane, 1,1,3,4-tetrachloro-1,2,2,3	302	C4Cl4F6	000423-38-1	50

08161175.D VOL5973.M Wed Aug 24 11:14:05 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 22:12
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-24 1/20
Lab Data File Name: 08111171.D
Sample Matrix: Aqueous Dilution=1/ 20
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.07E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	8.0
3)	chloromethane	ND					50.00	52.00	8.0
4)	vinyl chloride	ND					62.05	64.05	8.0
5)	bromomethane	ND					94.05	96.05	8.0
6)	chloroethane	ND					64.05	66.05	8.0
7)	trichlorofluoromethane	ND					100.95	102.95	8.0
8)	1,1 dichloroethene	48.86			9.01	4.10E+05	61.00	95.95	8.0
9)	methylene chloride	ND					83.95	49.00	8.0
10)	trans-1,2-dichloroethene	ND					95.95	61.00	8.0
11)	1,1 dichloroethane	ND					63.00	65.00	8.0
12)	2,2 dichloropropane	ND					77.00	96.95	8.0
13)	cis-1,2-dichloroethene	ND					95.95	97.95	8.0
14)	chloroform	ND					82.95	84.95	8.0
15)	bromochloromethane	ND					127.95	129.95	8.0
16)	1,1,1 trichloroethane	21.22			14.92	1.86E+05	96.95	99.00	8.0
17)	1,1 dichloropropene	ND					75.00	109.95	8.0
18)	carbon tetrachloride	ND					116.95	118.95	8.0
19)	benzene	ND					78.00	77.00	8.0
20)	1,2 dichloroethane	ND					62.00	98.05	8.0
21)	trichloroethene	268.94			17.80	1.83E+06	130.00	95.00	8.0
22)	1,2 dichloropropane	ND					63.00	76.00	8.0
23)	bromodichloromethane	ND					82.95	84.95	8.0
24)	dibromomethane	ND					93.00	95.00	8.0
25)	cis-1,3-dichloropropene	ND					75.00	109.95	8.0
26)	toluene	ND					92.00	91.00	8.0
27)	trans-1,3-dichloropropene	ND					75.00	109.95	8.0
28)	1,1,2 trichloroethane	ND					83.00	85.00	8.0
29)	1,3 dichloropropane	ND					76.00	78.00	8.0
30)	tetrachloroethene	2.61	J		23.76	1.96E+04	165.90	128.95	8.0
31)	dibromochloromethane	ND					129.00	127.00	8.0
32)	1,2 dibromoethane	ND					106.95	108.95	8.0
33)	ethylbenzene	ND					106.00	91.00	8.0
34)	chlorobenzene	ND					112.05	77.00	8.0
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	8.0
36)	m,p-xylene	ND					106.15	91.05	8.0
37)	o-xylene	ND					106.15	91.15	8.0

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	8.0	
39)	isopropylbenzene	ND				120.00	105.00	8.0	
40)	bromoform	ND				172.90	174.90	8.0	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	8.0	
42)	4-bromofluorobenzene	17.76	*SMC	30.67	3.08E+06	95.00	173.95	0.4	88.8
43)	1,2,3 trichloropropane	ND				110.00	112.00	40.0	
44)	n-propylbenzene	ND				120.00	91.00	8.0	
45)	bromobenzene	ND				155.95	157.95	8.0	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	8.0	
47)	2-chlorotoluene	ND				91.05	126.05	8.0	
48)	4-chlorotoluene	ND				91.15	126.05	8.0	
49)	tert-butylbenzene	ND				119.15	91.15	8.0	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	8.0	
51)	sec-butylbenzene	ND				134.00	105.00	8.0	
52)	4-isopropyltoluene	ND				134.00	119.00	8.0	
53)	1,3 dichlorobenzene	ND				145.95	147.95	8.0	
54)	1,4 dichlorobenzene	ND				145.95	147.95	8.0	
55)	n-butylbenzene	ND				134.00	91.00	8.0	
56)	1,2-dichlorobenzene-d4	16.43	*SMC	36.37	2.90E+06	151.90	149.90	0.4	82.1
57)	1,2 dichlorobenzene	ND				145.95	147.95	8.0	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	40.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	8.0	
60)	hexachlorobutadiene	ND				224.90	226.90	8.0	
61)	naphthalene	ND				128.05	0.00	20.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	20.0	
63)	MTBE	ND				73.10	57.05	40.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/17/11 12:39
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW-25
Lab Data File Name: 08161173.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.31E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	0.51		B	5.57	7.63E+04	50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	45.90		E	9.01	9.27E+06	61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	0.26	J		11.90	6.13E+04	63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	1.05			13.48	1.54E+05	95.95	97.95	0.4
14)	chloroform	0.18	J		13.88	3.98E+04	82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	19.38			14.93	4.19E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	ND					78.00	77.00	0.4
20)	1,2 dichloroethane	0.50			16.09	4.78E+04	62.00	98.05	0.4
21)	trichloroethene	216.04		E	17.80	3.70E+07	130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	ND					92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	2.47			23.75	4.64E+05	165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.79	*SMC	30.67	3.79E+06	95.00	173.95	0.4	88.9
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.56	*SMC	36.37	3.48E+06	151.90	149.90	0.4	82.8
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwilakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT. USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08161173.D Vial: 31
Acq On : 17 Aug 11 12:39 am Operator: cwlakin
Sample : MW-25 Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Ethane, 1,1,2-trichloro-1,2,2- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.50	0.25 PPB	337743	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	86
2	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	72
3	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	64
4	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	64
5	Butane, 1,1,3,4-tetrachloro-1,2,2,3	302	C4Cl4F6	000423-38-1	47

08161173.D VOL5973.M Wed Aug 24 10:28:37 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/4/11
Date Analyzed: 08/11/11 20:17
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: MW25 1/10
Lab Data File Name: 08111169.D
Sample Matrix: Aqueous Dilution=1/ 10
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.07E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	4.0
3)	chloromethane	ND					50.00	52.00	4.0
4)	vinyl chloride	ND					62.05	64.05	4.0
5)	bromomethane	ND					94.05	96.05	4.0
6)	chloroethane	ND					64.05	66.05	4.0
7)	trichlorofluoromethane	ND					100.95	102.95	4.0
8)	1,1 dichloroethene	25.09			9.02	4.19E+05	61.00	95.95	4.0
9)	methylene chloride	ND					83.95	49.00	4.0
10)	trans-1,2-dichloroethene	ND					95.95	61.00	4.0
11)	1,1 dichloroethane	ND					63.00	65.00	4.0
12)	2,2 dichloropropane	ND					77.00	96.95	4.0
13)	cis-1,2-dichloroethene	ND					95.95	97.95	4.0
14)	chloroform	ND					82.95	84.95	4.0
15)	bromochloromethane	ND					127.95	129.95	4.0
16)	1,1,1 trichloroethane	14.23			14.94	2.49E+05	96.95	99.00	4.0
17)	1,1 dichloropropene	ND					75.00	109.95	4.0
18)	carbon tetrachloride	ND					116.95	118.95	4.0
19)	benzene	ND					78.00	77.00	4.0
20)	1,2 dichloroethane	ND					62.00	98.05	4.0
21)	trichloroethene	174.23			17.80	2.36E+06	130.00	95.00	4.0
22)	1,2 dichloropropane	ND					63.00	76.00	4.0
23)	bromodichloromethane	ND					82.95	84.95	4.0
24)	dibromomethane	ND					93.00	95.00	4.0
25)	cis-1,3-dichloropropene	ND					75.00	109.95	4.0
26)	toluene	ND					92.00	91.00	4.0
27)	trans-1,3-dichloropropene	ND					75.00	109.95	4.0
28)	1,1,2 trichloroethane	ND					83.00	85.00	4.0
29)	1,3 dichloropropane	ND					76.00	78.00	4.0
30)	tetrachloroethene	1.56	J		23.74	2.33E+04	165.90	128.95	4.0
31)	dibromochloromethane	ND					129.00	127.00	4.0
32)	1,2 dibromoethane	ND					106.95	108.95	4.0
33)	ethylbenzene	ND					106.00	91.00	4.0
34)	chlorobenzene	ND					112.05	77.00	4.0
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	4.0
36)	m,p-xylene	ND					106.15	91.05	4.0
37)	o-xylene	ND					106.15	91.15	4.0

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	4.0	
39)	isopropylbenzene	ND				120.00	105.00	4.0	
40)	bromoform	ND				172.90	174.90	4.0	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	4.0	
42)	4-bromofluorobenzene	17.87	*SMC	30.67	3.09E+06	95.00	173.95	0.4	89.4
43)	1,2,3 trichloropropane	ND				110.00	112.00	20.0	
44)	n-propylbenzene	ND				120.00	91.00	4.0	
45)	bromobenzene	ND				155.95	157.95	4.0	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	4.0	
47)	2-chlorotoluene	ND				91.05	126.05	4.0	
48)	4-chlorotoluene	ND				91.15	126.05	4.0	
49)	tert-butylbenzene	ND				119.15	91.15	4.0	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	4.0	
51)	sec-butylbenzene	ND				134.00	105.00	4.0	
52)	4-isopropyltoluene	ND				134.00	119.00	4.0	
53)	1,3 dichlorobenzene	ND				145.95	147.95	4.0	
54)	1,4 dichlorobenzene	ND				145.95	147.95	4.0	
55)	n-butylbenzene	ND				134.00	91.00	4.0	
56)	1,2-dichlorobenzene-d4	16.62	*SMC	36.37	2.91E+06	151.90	149.90	0.4	83.1
57)	1,2 dichlorobenzene	ND				145.95	147.95	4.0	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	20.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	4.0	
60)	hexachlorobutadiene	ND				224.90	226.90	4.0	
61)	naphthalene	ND				128.05	0.00	10.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	10.0	
63)	MTBE	ND				73.10	57.05	20.0	

GC/MS Operator owlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
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SYSTEM PERFORMANCE REPORTS

CALIBRATION STANDARDS

METHOD BLANKS

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/10/11
Date Analyzed: 08/10/11 15:02
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: 524 30 mtbe 60
Lab Data File Name: 08101164.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.17E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	30.00		5.03	4.60E+06	85.05	87.05	0.4
3)	chloromethane	30.00		5.59	5.02E+06	50.00	52.00	0.4
4)	vinyl chloride	30.00		5.89	5.63E+06	62.05	64.05	0.4
5)	bromomethane	30.00		6.91	2.99E+06	94.05	96.05	0.4
6)	chloroethane	30.00		7.04	3.21E+06	64.05	66.05	0.4
7)	trichlorofluoromethane	30.00		7.59	5.92E+06	100.95	102.95	0.4
8)	1,1 dichloroethene	30.00		9.02	5.63E+06	61.00	95.95	0.4
9)	methylene chloride	30.00		10.18	3.12E+06	83.95	49.00	0.4
10)	trans-1,2-dichloroethene	30.00		10.85	4.22E+06	95.95	61.00	0.4
11)	1,1 dichloroethane	30.00		11.92	6.47E+06	63.00	65.00	0.4
12)	2,2 dichloropropane	30.00		13.32	5.16E+06	77.00	96.95	0.4
13)	cis-1,2-dichloroethene	30.00		13.48	3.90E+06	95.95	97.95	0.4
14)	chloroform	30.00		13.88	5.93E+06	82.95	84.95	0.4
15)	bromochloromethane	30.00		14.39	1.25E+06	127.95	129.95	0.4
16)	1,1,1 trichloroethane	30.00		14.93	5.65E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	30.00		15.33	5.30E+06	75.00	109.95	0.4
18)	carbon tetrachloride	30.00		15.65	5.16E+06	116.95	118.95	0.4
19)	benzene	30.00		16.15	1.52E+07	78.00	77.00	0.4
20)	1,2 dichloroethane	30.00		16.10	2.76E+06	62.00	98.05	0.4
21)	trichloroethene	30.00		17.80	4.42E+06	130.00	95.00	0.4
22)	1,2 dichloropropane	30.00		18.35	2.96E+06	63.00	76.00	0.4
23)	bromodichloromethane	30.00		19.09	3.36E+06	82.95	84.95	0.4
24)	dibromomethane	30.00		19.32	1.03E+06	93.00	95.00	0.4
25)	cis-1,3-dichloropropene	30.00		20.66	4.05E+06	75.00	109.95	0.4
26)	toluene	30.00		21.67	9.97E+06	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	30.00		22.23	2.99E+06	75.00	109.95	0.4
28)	1,1,2 trichloroethane	30.00		22.77	1.29E+06	83.00	85.00	0.4
29)	1,3 dichloropropane	30.00		23.60	2.90E+06	76.00	78.00	0.4
30)	tetrachloroethene	30.00		23.75	4.87E+06	165.90	128.95	0.4
31)	dibromochloromethane	30.00		24.57	1.85E+06	129.00	127.00	0.4
32)	1,2 dibromoethane	30.00		25.24	1.35E+06	106.95	108.95	0.4
33)	ethylbenzene	30.00		26.67	6.68E+06	106.00	91.00	0.4
34)	chlorobenzene	30.00		26.57	1.02E+07	112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	30.00		26.69	3.38E+06	130.95	132.95	0.4
36)	m,p-xylene	60.00		26.91	1.60E+07	106.15	91.05	0.4
37)	o-xylene	30.00		28.46	7.35E+06	106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	30.00		28.61	1.08E+07	104.05	78.10	0.4	
39)	isopropylbenzene	30.00		29.67	5.87E+06	120.00	105.00	0.4	
40)	bromoform	30.00		29.97	1.01E+06	172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	30.00		30.40	1.59E+06	82.95	84.95	0.4	
42)	4-bromofluorobenzene	20.00	*SMC	30.67	3.80E+06	95.00	173.95	0.4	100.0
43)	1,2,3 trichloropropane	30.00		30.94	5.01E+05	110.00	112.00	2.0	
44)	n-propylbenzene	30.00		31.10	6.18E+06	120.00	91.00	0.4	
45)	bromobenzene	30.00		31.41	4.11E+06	155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	30.00		31.66	9.25E+06	120.00	105.00	0.4	
47)	2-chlorotoluene	30.00		31.83	1.32E+07	91.05	126.05	0.4	
48)	4-chlorotoluene	30.00		31.98	1.35E+07	91.15	126.05	0.4	
49)	tert-butylbenzene	30.00		32.95	1.59E+07	119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	30.00		33.11	8.53E+06	120.00	105.00	0.4	
51)	sec-butylbenzene	30.00		33.72	5.10E+06	134.00	105.00	0.4	
52)	4-isopropyltoluene	30.00		34.21	6.02E+06	134.00	119.00	0.4	
53)	1,3 dichlorobenzene	30.00		34.68	9.58E+06	145.95	147.95	0.4	
54)	1,4 dichlorobenzene	30.00		35.08	9.16E+06	145.95	147.95	0.4	
55)	n-butylbenzene	30.00		35.72	5.77E+06	134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	20.00	*SMC	36.37	3.99E+06	151.90	149.90	0.4	100.0
57)	1,2 dichlorobenzene	30.00		36.47	7.57E+06	145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	30.00		38.85	1.93E+05	75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	30.00		40.93	5.39E+06	180.00	182.00	0.4	
60)	hexachlorobutadiene	30.00		41.21	4.66E+06	224.90	226.90	0.4	
61)	naphthalene	30.00		41.66	4.77E+06	128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	30.00		42.27	3.34E+06	180.00	182.00	1.0	
63)	MTBE	60.00		10.39	1.03E+07	73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/10/11
Date Analyzed: 08/10/11 16:57
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: Method Blank
Lab Data File Name: 08101166.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*		Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00		*ISTD	16.67	1.12E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND					85.05	87.05	0.4
3)	chloromethane	0.44		B	5.54	6.99E+04	50.00	52.00	0.4
4)	vinyl chloride	ND					62.05	64.05	0.4
5)	bromomethane	ND					94.05	96.05	0.4
6)	chloroethane	ND					64.05	66.05	0.4
7)	trichlorofluoromethane	ND					100.95	102.95	0.4
8)	1,1 dichloroethene	ND					61.00	95.95	0.4
9)	methylene chloride	ND					83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND					95.95	61.00	0.4
11)	1,1 dichloroethane	ND					63.00	65.00	0.4
12)	2,2 dichloropropane	ND					77.00	96.95	0.4
13)	cis-1,2-dichloroethene	ND					95.95	97.95	0.4
14)	chloroform	ND					82.95	84.95	0.4
15)	bromochloromethane	ND					127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND					96.95	99.00	0.4
17)	1,1 dichloropropene	ND					75.00	109.95	0.4
18)	carbon tetrachloride	ND					116.95	118.95	0.4
19)	benzene	ND					78.00	77.00	0.4
20)	1,2 dichloroethane	ND					62.00	98.05	0.4
21)	trichloroethene	ND					130.00	95.00	0.4
22)	1,2 dichloropropane	ND					63.00	76.00	0.4
23)	bromodichloromethane	ND					82.95	84.95	0.4
24)	dibromomethane	ND					93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND					75.00	109.95	0.4
26)	toluene	ND					92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND					75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND					83.00	85.00	0.4
29)	1,3 dichloropropane	ND					76.00	78.00	0.4
30)	tetrachloroethene	ND					165.90	128.95	0.4
31)	dibromochloromethane	ND					129.00	127.00	0.4
32)	1,2 dibromoethane	ND					106.95	108.95	0.4
33)	ethylbenzene	ND					106.00	91.00	0.4
34)	chlorobenzene	ND					112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND					130.95	132.95	0.4
36)	m,p-xylene	ND					106.15	91.05	0.4
37)	o-xylene	ND					106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	17.98	*SMC	30.67	3.28E+06	95.00	173.95	0.4	89.9
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	16.63	*SMC	36.37	3.19E+06	151.90	149.90	0.4	83.2
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
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"ISTD" = INTERNAL STANDARD
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Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08101166.D Vial: 26
Acq On : 10 Aug 11 4:57 pm Operator: cwlakin
Sample : Method Blank Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

****
08101166.D VOL5973.M Thu Aug 11 10:17:39 2011

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/11/11
Date Analyzed: 08/11/11 13:35
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: 524 30 mtbe 60
Lab Data File Name: 08111162.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.28E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	30.00		5.03	4.35E+06	85.05	87.05	0.4
3)	chloromethane	30.00		5.59	4.84E+06	50.00	52.00	0.4
4)	vinyl chloride	30.00		5.89	5.18E+06	62.05	64.05	0.4
5)	bromomethane	30.00		6.90	3.22E+06	94.05	96.05	0.4
6)	chloroethane	30.00		7.03	3.39E+06	64.05	66.05	0.4
7)	trichlorofluoromethane	30.00		7.59	6.40E+06	100.95	102.95	0.4
8)	1,1 dichloroethene	30.00		9.02	6.02E+06	61.00	95.95	0.4
9)	methylene chloride	30.00		10.18	3.44E+06	83.95	49.00	0.4
10)	trans-1,2-dichloroethene	30.00		10.85	4.63E+06	95.95	61.00	0.4
11)	1,1 dichloroethane	30.00		11.91	6.92E+06	63.00	65.00	0.4
12)	2,2 dichloropropane	30.00		13.32	5.67E+06	77.00	96.95	0.4
13)	cis-1,2-dichloroethene	30.00		13.48	4.28E+06	95.95	97.95	0.4
14)	chloroform	30.00		13.88	6.46E+06	82.95	84.95	0.4
15)	bromochloromethane	30.00		14.39	1.42E+06	127.95	129.95	0.4
16)	1,1,1 trichloroethane	30.00		14.93	6.29E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	30.00		15.32	5.71E+06	75.00	109.95	0.4
18)	carbon tetrachloride	30.00		15.64	5.75E+06	116.95	118.95	0.4
19)	benzene	30.00		16.15	1.63E+07	78.00	77.00	0.4
20)	1,2 dichloroethane	30.00		16.10	2.98E+06	62.00	98.05	0.4
21)	trichloroethene	30.00		17.80	4.89E+06	130.00	95.00	0.4
22)	1,2 dichloropropane	30.00		18.35	3.18E+06	63.00	76.00	0.4
23)	bromodichloromethane	30.00		19.09	3.72E+06	82.95	84.95	0.4
24)	dibromomethane	30.00		19.32	1.14E+06	93.00	95.00	0.4
25)	cis-1,3-dichloropropene	30.00		20.67	4.45E+06	75.00	109.95	0.4
26)	toluene	30.00		21.67	1.07E+07	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	30.00		22.23	3.28E+06	75.00	109.95	0.4
28)	1,1,2 trichloroethane	30.00		22.78	1.42E+06	83.00	85.00	0.4
29)	1,3 dichloropropane	30.00		23.60	3.18E+06	76.00	78.00	0.4
30)	tetrachloroethene	30.00		23.75	5.39E+06	165.90	128.95	0.4
31)	dibromochloromethane	30.00		24.57	2.09E+06	129.00	127.00	0.4
32)	1,2 dibromoethane	30.00		25.24	1.53E+06	106.95	108.95	0.4
33)	ethylbenzene	30.00		26.67	7.15E+06	106.00	91.00	0.4
34)	chlorobenzene	30.00		26.57	1.11E+07	112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	30.00		26.69	3.71E+06	130.95	132.95	0.4
36)	m,p-xylene	60.00		26.91	1.69E+07	106.15	91.05	0.4
37)	o-xylene	30.00		28.46	7.97E+06	106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	30.00		28.61	1.15E+07	104.05	78.10	0.4	
39)	isopropylbenzene	30.00		29.67	6.25E+06	120.00	105.00	0.4	
40)	bromoform	30.00		29.97	1.12E+06	172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	30.00		30.40	1.72E+06	82.95	84.95	0.4	
42)	4-bromofluorobenzene	20.00	*SMC	30.67	4.15E+06	95.00	173.95	0.4	100.0
43)	1,2,3 trichloropropane	30.00		30.94	5.46E+05	110.00	112.00	2.0	
44)	n-propylbenzene	30.00		31.10	6.56E+06	120.00	91.00	0.4	
45)	bromobenzene	30.00		31.41	4.46E+06	155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	30.00		31.66	9.77E+06	120.00	105.00	0.4	
47)	2-chlorotoluene	30.00		31.83	1.43E+07	91.05	126.05	0.4	
48)	4-chlorotoluene	30.00		31.98	1.42E+07	91.15	126.05	0.4	
49)	tert-butylbenzene	30.00		32.95	1.67E+07	119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	30.00		33.11	8.89E+06	120.00	105.00	0.4	
51)	sec-butylbenzene	30.00		33.72	5.35E+06	134.00	105.00	0.4	
52)	4-isopropyltoluene	30.00		34.21	6.23E+06	134.00	119.00	0.4	
53)	1,3 dichlorobenzene	30.00		34.68	1.00E+07	145.95	147.95	0.4	
54)	1,4 dichlorobenzene	30.00		35.08	9.59E+06	145.95	147.95	0.4	
55)	n-butylbenzene	30.00		35.72	5.96E+06	134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	20.00	*SMC	36.37	4.21E+06	151.90	149.90	0.4	100.0
57)	1,2 dichlorobenzene	30.00		36.47	7.90E+06	145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	30.00		38.85	2.03E+05	75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	30.00		40.93	5.58E+06	180.00	182.00	0.4	
60)	hexachlorobutadiene	30.00		41.21	4.86E+06	224.90	226.90	0.4	
61)	naphthalene	30.00		41.66	5.08E+06	128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	30.00		42.27	3.53E+06	180.00	182.00	1.0	
63)	MTBE	60.00		10.39	1.24E+07	73.10	57.05	2.0	

GC/MS Operator cwiakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
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"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/11/11
Date Analyzed: 08/11/11 15:29
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: Method Blank
Lab Data File Name: 08111164.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.21E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	ND				50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	ND				61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	ND				63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	ND				95.95	97.95	0.4
14)	chloroform	ND				82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND				96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	ND				78.00	77.00	0.4
20)	1,2 dichloroethane	ND				62.00	98.05	0.4
21)	trichloroethene	ND				130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	ND				92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND				83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	ND				165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	ND				106.15	91.05	0.4
37)	o-xylene	ND				106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	18.54	*SMC	30.67	3.62E+06	95.00	173.95	0.4	92.7
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	17.77	*SMC	36.37	3.53E+06	151.90	149.90	0.4	88.8
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT. USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

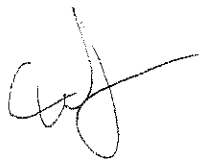
Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08111164.D Vial: 24
Acq On : 11 Aug 11 3:29 pm Operator: cwlakin
Sample : Method Blank Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

****
08111164.D VOL5973.M Fri Aug 12 12:33:35 2011



NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/16/11
Date Analyzed: 08/16/11 15:03
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: 524 30 mtbe 60
Lab Data File Name: 08161163.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.55E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	30.00		5.02	4.31E+06	85.05	87.05	0.4
3)	chloromethane	30.00		5.58	5.30E+06	50.00	52.00	0.4
4)	vinyl chloride	30.00		5.87	5.90E+06	62.05	64.05	0.4
5)	bromomethane	30.00		6.89	3.85E+06	94.05	96.05	0.4
6)	chloroethane	30.00		7.03	4.08E+06	64.05	66.05	0.4
7)	trichlorofluoromethane	30.00		7.58	7.75E+06	100.95	102.95	0.4
8)	1,1 dichloroethene	30.00		9.01	7.16E+06	61.00	95.95	0.4
9)	methylene chloride	30.00		10.17	4.06E+06	83.95	49.00	0.4
10)	trans-1,2-dichloroethene	30.00		10.85	5.65E+06	95.95	61.00	0.4
11)	1,1 dichloroethane	30.00		11.91	8.43E+06	63.00	65.00	0.4
12)	2,2 dichloropropane	30.00		13.31	6.84E+06	77.00	96.95	0.4
13)	cis-1,2-dichloroethene	30.00		13.48	5.20E+06	95.95	97.95	0.4
14)	chloroform	30.00		13.87	7.81E+06	82.95	84.95	0.4
15)	bromochloromethane	30.00		14.38	1.67E+06	127.95	129.95	0.4
16)	1,1,1 trichloroethane	30.00		14.93	7.66E+06	96.95	99.00	0.4
17)	1,1 dichloropropene	30.00		15.32	7.07E+06	75.00	109.95	0.4
18)	carbon tetrachloride	30.00		15.64	7.02E+06	116.95	118.95	0.4
19)	benzene	30.00		16.14	1.99E+07	78.00	77.00	0.4
20)	1,2 dichloroethane	30.00		16.10	3.42E+06	62.00	98.05	0.4
21)	trichloroethene	30.00		17.80	6.08E+06	130.00	95.00	0.4
22)	1,2 dichloropropane	30.00		18.35	3.87E+06	63.00	76.00	0.4
23)	bromodichloromethane	30.00		19.09	4.37E+06	82.95	84.95	0.4
24)	dibromomethane	30.00		19.32	1.33E+06	93.00	95.00	0.4
25)	cis-1,3-dichloropropene	30.00		20.67	5.27E+06	75.00	109.95	0.4
26)	toluene	30.00		21.67	1.32E+07	92.00	91.00	0.4
27)	trans-1,3-dichloropropene	30.00		22.23	3.82E+06	75.00	109.95	0.4
28)	1,1,2 trichloroethane	30.00		22.77	1.67E+06	83.00	85.00	0.4
29)	1,3 dichloropropane	30.00		23.60	3.75E+06	76.00	78.00	0.4
30)	tetrachloroethene	30.00		23.75	6.66E+06	165.90	128.95	0.4
31)	dibromochloromethane	30.00		24.56	2.40E+06	129.00	127.00	0.4
32)	1,2 dibromoethane	30.00		25.24	1.79E+06	106.95	108.95	0.4
33)	ethylbenzene	30.00		26.67	8.76E+06	106.00	91.00	0.4
34)	chlorobenzene	30.00		26.57	1.34E+07	112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	30.00		26.68	4.39E+06	130.95	132.95	0.4
36)	m,p-xylene	60.00		26.91	2.02E+07	106.15	91.05	0.4
37)	o-xylene	30.00		28.46	9.60E+06	106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	30.00		28.61	1.26E+07	104.05	78.10	0.4	
39)	isopropylbenzene	30.00		29.67	7.65E+06	120.00	105.00	0.4	
40)	bromoform	30.00		29.97	1.22E+06	172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	30.00		30.40	1.97E+06	82.95	84.95	0.4	
42)	4-bromofluorobenzene	20.00	*SMC	30.67	5.04E+06	95.00	173.95	0.4	100.0
43)	1,2,3 trichloropropane	30.00		30.94	6.22E+05	110.00	112.00	2.0	
44)	n-propylbenzene	30.00		31.10	8.04E+06	120.00	91.00	0.4	
45)	bromobenzene	30.00		31.41	5.29E+06	155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	30.00		31.66	1.15E+07	120.00	105.00	0.4	
47)	2-chlorotoluene	30.00		31.83	1.67E+07	91.05	126.05	0.4	
48)	4-chlorotoluene	30.00		31.98	1.69E+07	91.15	126.05	0.4	
49)	tert-butylbenzene	30.00		32.95	2.02E+07	119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	30.00		33.11	1.01E+07	120.00	105.00	0.4	
51)	sec-butylbenzene	30.00		33.72	6.54E+06	134.00	105.00	0.4	
52)	4-isopropyltoluene	30.00		34.21	7.55E+06	134.00	119.00	0.4	
53)	1,3 dichlorobenzene	30.00		34.68	1.18E+07	145.95	147.95	0.4	
54)	1,4 dichlorobenzene	30.00		35.08	1.12E+07	145.95	147.95	0.4	
55)	n-butylbenzene	30.00		35.72	7.24E+06	134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	20.00	*SMC	36.37	4.97E+06	151.90	149.90	0.4	100.0
57)	1,2 dichlorobenzene	30.00		36.47	9.18E+06	145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	30.00		38.86	2.18E+05	75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	30.00		40.93	6.41E+06	180.00	182.00	0.4	
60)	hexachlorobutadiene	30.00		41.22	5.94E+06	224.90	226.90	0.4	
61)	naphthalene	30.00		41.66	5.65E+06	128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	30.00		42.27	3.98E+06	180.00	182.00	1.0	
63)	MTBE	60.00		10.38	1.36E+07	73.10	57.05	2.0	

GC/MS Operator cwlaklin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
"ND" = NOT DETECTED
"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
"SMC" = SYSTEM MONITORING COMPOUND
"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT.
USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

NJDEP MOBILE LABORATORY ANALYTICAL RESULTS REPORT

LAB METHOD 524: Measurement Of Purgeable VOCS In Water By Capillary Column GC/MS

Site Name: Vauxhall Road
Date Received: 8/16/11
Date Analyzed: 08/16/11 16:58
ID: AGILENT TECHNOLOGIES,5973N,0,3.01.57

Field Sample Name: Method Blank
Lab Data File Name: 08161165.D
Sample Matrix: Aqueous Dilution=1/ 1
GC Column: VOCOL 60m, .25mm ID, 1.5um film

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL
1)	fluorobenzene	20.00	*ISTD	16.67	1.47E+07	96.00	69.95	0.4
2)	dichlorodifluoromethane	ND				85.05	87.05	0.4
3)	chloromethane	ND				50.00	52.00	0.4
4)	vinyl chloride	ND				62.05	64.05	0.4
5)	bromomethane	ND				94.05	96.05	0.4
6)	chloroethane	ND				64.05	66.05	0.4
7)	trichlorofluoromethane	ND				100.95	102.95	0.4
8)	1,1 dichloroethene	ND				61.00	95.95	0.4
9)	methylene chloride	ND				83.95	49.00	0.4
10)	trans-1,2-dichloroethene	ND				95.95	61.00	0.4
11)	1,1 dichloroethane	ND				63.00	65.00	0.4
12)	2,2 dichloropropane	ND				77.00	96.95	0.4
13)	cis-1,2-dichloroethene	ND				95.95	97.95	0.4
14)	chloroform	ND				82.95	84.95	0.4
15)	bromochloromethane	ND				127.95	129.95	0.4
16)	1,1,1 trichloroethane	ND				96.95	99.00	0.4
17)	1,1 dichloropropene	ND				75.00	109.95	0.4
18)	carbon tetrachloride	ND				116.95	118.95	0.4
19)	benzene	ND				78.00	77.00	0.4
20)	1,2 dichloroethane	ND				62.00	98.05	0.4
21)	trichloroethene	ND				130.00	95.00	0.4
22)	1,2 dichloropropane	ND				63.00	76.00	0.4
23)	bromodichloromethane	ND				82.95	84.95	0.4
24)	dibromomethane	ND				93.00	95.00	0.4
25)	cis-1,3-dichloropropene	ND				75.00	109.95	0.4
26)	toluene	ND				92.00	91.00	0.4
27)	trans-1,3-dichloropropene	ND				75.00	109.95	0.4
28)	1,1,2 trichloroethane	ND				83.00	85.00	0.4
29)	1,3 dichloropropane	ND				76.00	78.00	0.4
30)	tetrachloroethene	ND				165.90	128.95	0.4
31)	dibromochloromethane	ND				129.00	127.00	0.4
32)	1,2 dibromoethane	ND				106.95	108.95	0.4
33)	ethylbenzene	ND				106.00	91.00	0.4
34)	chlorobenzene	ND				112.05	77.00	0.4
35)	1,1,1,2 tetrachloroethane	ND				130.95	132.95	0.4
36)	m,p-xylene	ND				106.15	91.05	0.4
37)	o-xylene	ND				106.15	91.15	0.4

#	Compound Name	Concentration PPB	*	Ret Time Minutes	Quantitation Response	Quant m/z	Qual m/z	MRL	SMC %Recov
38)	styrene	ND				104.05	78.10	0.4	
39)	isopropylbenzene	ND				120.00	105.00	0.4	
40)	bromoform	ND				172.90	174.90	0.4	
41)	1,1,2,2 tetrachloroethane	ND				82.95	84.95	0.4	
42)	4-bromofluorobenzene	19.07	*SMC	30.67	4.57E+06	95.00	173.95	0.4	95.4
43)	1,2,3 trichloropropane	ND				110.00	112.00	2.0	
44)	n-propylbenzene	ND				120.00	91.00	0.4	
45)	bromobenzene	ND				155.95	157.95	0.4	
46)	1,3,5 trimethylbenzene	ND				120.00	105.00	0.4	
47)	2-chlorotoluene	ND				91.05	126.05	0.4	
48)	4-chlorotoluene	ND				91.15	126.05	0.4	
49)	tert-butylbenzene	ND				119.15	91.15	0.4	
50)	1,2,4 trimethylbenzene	ND				120.00	105.00	0.4	
51)	sec-butylbenzene	ND				134.00	105.00	0.4	
52)	4-isopropyltoluene	ND				134.00	119.00	0.4	
53)	1,3 dichlorobenzene	ND				145.95	147.95	0.4	
54)	1,4 dichlorobenzene	ND				145.95	147.95	0.4	
55)	n-butylbenzene	ND				134.00	91.00	0.4	
56)	1,2-dichlorobenzene-d4	18.52	*SMC	36.37	4.38E+06	151.90	149.90	0.4	92.6
57)	1,2 dichlorobenzene	ND				145.95	147.95	0.4	
58)	1,2-dibromo-3-chloropropane	ND				75.00	154.95	2.0	
59)	1,2,4 trichlorobenzene	ND				180.00	182.00	0.4	
60)	hexachlorobutadiene	ND				224.90	226.90	0.4	
61)	naphthalene	ND				128.05	0.00	1.0	
62)	1,2,3 trichlorobenzene	ND				180.00	182.00	1.0	
63)	MTBE	ND				73.10	57.05	2.0	

GC/MS Operator cwlakin

Mobile Laboratory Manager

* LEGEND:

"J" = <MRL (METHOD REPORTING LIMIT)
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"B" = DETECTED IN BOTH SAMPLE & TRIP BLANK
"ISTD" = INTERNAL STANDARD
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"E" = CONCENTRATION OF SPECIFIC COMPOUND EXCEEDED CALIBRATION RANGE UPPER LIMIT. USE INDIVIDUAL RESULTS FROM DILUTED SAMPLES WHEN AVAILABLE.

Jones, R. P., and Clarke, J. U. (2005). "Analytical chemistry detection limits and the evaluation of dredged sediment," ERDC/TN EEDP-04-36, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\VAUXHA~1.08\08161165.D Vial: 25
Acq On : 16 Aug 11 4:58 pm Operator: cwlakin
Sample : Method Blank Inst : Instrumen
Misc : Vauxhall Rd. & Swanstrom Pl. / A605590P Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Method : C:\HPCHEM\1\METHODS\VOL5973.M (RTE Integrator)
Title : NJDEP MOBILE LABORATORY
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Propane, 2-chloro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.51	0.26 PPB	390806	fluorobenzene	16.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 2-chloro-	78	C3H7Cl	000075-29-6	72
2	Propane, 2-chloro-	78	C3H7Cl	000075-29-6	64
3	Propane, 2-chloro-	78	C3H7Cl	000075-29-6	33
4	Propane, 2-chloro-	78	C3H7Cl	000075-29-6	9
5	Hydrogen azide	43	HN3	007782-79-8	4

08161165.D VOL5973.M Tue Aug 23 13:40:11 2011

DEP-095C
8/03

New Jersey Department of Environmental Protection
EXTERNAL CHAIN OF CUSTODY AND SAMPLE ~~ANALYSIS~~ REQUEST FORM
(with Shipping Container)

DO

LABORATORY INFORMATION

Name of Laboratory: DEP ENV. LAB — Individual Preparing Sample Bottles and Shipping Container(s)

Address: 951 PARKWAY AVE. EWING NJ — Name: CW — Title: _____

Time/Date Sample Shipping Container Sealed: 1800 / 7/29/11 — Laboratory Affixed Seal Number: _____

NJDEP INFORMATION

Division: SRP/PFSR — Bureau: BEMSA

Phone: (609) 530-2474 — Job Number: A0055901 (VAUXHALL RD.,.)

REQUESTED ANALYSIS

NJDEP FIELD SAMPLE NUMBER	SAMPLING TIME START/STOP	SAMPLING DATE	PARAMETER	METHOD	PRESERV.	CONTAINER VOLUME	CONTAINER QUANTITY	MATRIX
MW-1	11:10-11:15	8/03/2011	VOCs, TCL		HCl	40ml	5	GW
MW-2	1330-1340							
MW-3	1245-1255							
MW-4	1145-1155							
MW-5	1006-1015							
MW-5D	1114-1121							
MW-6	1140-1150							
MW-7	1230-1240							
~~MW-8~~	~~1121-1123~~	COC (not received)						
MW-23	1409-1412							
MW-24	1355-1404							
MW-25	1530-1534							
FIELD BLANK	1519-1527				↓		3	LAB H2O
TRIP BLANK		↓	↓			↓	3	LAB H2O

Preservative Added: *(check one)* ☐ LABORATORY ☐ FIELD ☐ UNPRESERVED

Contract Number: _____ Task Number: _____ Report Format: _____

EXTERNAL CHAIN OF CUSTODY

RELINQUISHED	RECEIVED	TIME/DATE	REASON FOR CHANGE OF EXTERNAL CUSTODY **BREAK SEAL/SAMPLE**
XXXXXXXXXXXXXXXXXX			
Greg Rapp	Courier	1115/8-4-2011	For analysis at Lab

Individual Resealing Shipping Container: Name: _____ Title: _____
Time/Date Sample Shipping Container Resealed: _____ NJDEP Affixed Seal Number: _____
Individual Breaking Shipping Container Seal and Accepting Responsibility at the Laboratory for the Sample: Name: _____
Time/Date Sample Shipping Container Opened: _____
Time/Date Internal Chain of Custody Initiated on NJDEP Form 077 (Internal Chain of Custody): _____